



**GRAND VALLEY
STATE UNIVERSITY**

**FREDERIK MEIJER
HONORS COLLEGE**



**Graduate Profiles
Grand Valley State University
Class of Winter 2017**

“Live. Learn. Lead.” This is the motto of the Frederick Meijer Honors College. It was adopted because it describes what Honors students do. Even a cursory glance through the profiles of the graduates included in this booklet will confirm this. Honors students are accomplished scholars and extraordinary leaders, and they contribute to a remarkable array of fields. They are also global citizens, as is demonstrated by how many of them have studied abroad, have been involved in service activities and organizations, and plan to devote themselves to the public good in their professional and personal lives. Given their successes and contributions, there is no question that these graduates will go on to do even greater things.

Few of the graduates will say that it has been easy to get to this point – they have been challenged and tested along the way. It takes exceptional motivation, persistence, and achievement to graduate in good standing in the Meijer Honors College.

Graduates, it is with great pleasure and pride that we congratulate and commend you upon your graduation. We are privileged to have played a role in your education, delighted by your triumphs, and eager to hear about your future successes. Please stay in touch and let us know where you go and what you do.

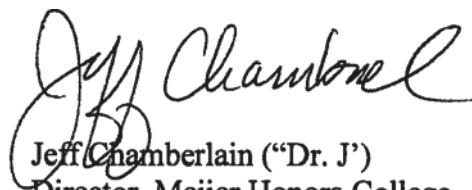
With our esteem and best wishes for your future,



Anne Hiskes, Dean
Brooks College of Interdisciplinary Studies



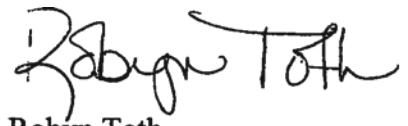
Meg Marshall
Honors Academic & Enrichment Advisor



Jeff Chamberlain (“Dr. J”)
Director, Meijer Honors College



Kelly McDonell
Honors Academic & Enrichment Advisor



Robyn Toth
Meijer Honors College Assistant



Congratulations Graduates!

The Frederik Meijer Office of Fellowships part of the Frederik Meijer Honors College, commends you on completing your undergraduate studies at Grand Valley State University. We know you have bright futures and look forward to your many accomplishments in years to come.

Remember that our services are available to alumni!

Competitive scholarships, fellowships and awards support graduate study, language study, public service, research, foreign service, teaching and other opportunities in the US and overseas. These awards reward past performance, recognize future promise, and often serve as springboards to greater opportunities. Begin your search at www.gvsu.edu/fellowships under "Award Opportunities" and <http://www.gvsu.edu/financialaid/scholarships-list.htm>.

To learn more about inter/nationally competitive awards, visit our homepage, email fellowships@gvsu.edu or click on the "schedule an appointment" button and select "alumni" under www.gvsu.edu/fellowships.

We look forward to working with you!

Wishing you continued success,

Elizabeth Harrington Lambert

Elizabeth Harrington Lambert
Director

Ollie Ajami, Marketing and Legal Studies



Senior Project title: The Effectiveness of Arbitration in Collective Bargaining Agreements (CBAs)

Summary of senior project: The Effectiveness of Arbitration in CBAs provides an in depth discussion about how arbitration clauses function, especially in the professional sports industry, and the many implications that play a factor in finding the optimal solution for both employers (NFL and NBA) and employees (NFLA and NBAPA) when dealing with specific cases.

Leadership Activities: Fellow, Cook Leadership Academy at the Hauenstein Center for Presidential & Leadership Studies. Invitee, Laker Leadership Development Program. Leadership Council, GVSU Football Team. President, GVSU Law Society.

Internship/Practicum experience: Metro Carpet and Floors, Northwestern Mutual, Law Offices of Dave Charron, Miller Johnson.

Activities/Awards: Dean's List; All-GLIAC Academic Excellence Team

Greatest accomplishment while at Grand Valley: Submitting my last final exam.

Plans after graduation: Work and enroll into law school. Accepted into University of Detroit Mercy Law School.

Molly Alger, Computer Science



Senior Project title: Mobile Application for Rook Polynomial Games

Summary of senior project: In order to teach students the mathematical concept of rook polynomials, Jennifer Moon and I developed an Android application under the guidance of Dr. Feryal Alayont. The application features a game to help make learning about rook polynomials fun and interesting.

Leadership Activities: I was on the executive board for GVSU's chapter of the Society of Women Engineers for three years. I helped plan events, including professional development, networking, and social events for members.

Study Abroad experience: I spent a semester studying abroad at Edinburgh Napier University in Edinburgh, Scotland. While there, I took courses in computer science as well as my Junior Seminar, studying sociology and the environment.

Internship/Practicum experience: I had the opportunity to have two internships at Consumers Energy during my time at Grand Valley. The first one was spent on their IT

Disaster Recovery team, where I documented processes and procedures and created various presentations for disaster recovery events. The second internship was as part of their software development and user experience and design team. I wrote various programs that are currently being used by both the business and Consumers Energy customers, including updating one of their iOS applications.

Greatest accomplishment while at Grand Valley: While at Grand Valley, my greatest accomplishment has been going into my final semester with a job after graduation.

Plans after graduation: I was offered and accepted a job as a software developer at Atomic Object, a software development consultancy in Grand Rapids. At Atomic, I will be starting off in their Accelerator program for recent college graduates. The program offers training for both software development and professional development.

Alexis N. Awdziejczyk, Exercise Science- Health Fitness Instruction



program. Two years later, completing my curriculum and have a better understanding for the results we got, I wanted to further disseminate my findings and publish a manuscript.

Research and presentations: Impact of Standing on Power Output during Sprint Cycling in Females (American College of Sports Medicine 63rd Annual Meeting 2016, Student Scholars Day 2016, Michigan American College of Sports Medicine Conference 2017) Key Performance Indicators in D2 Women's Collegiate Lacrosse, Effect of Static (Student Scholars Day 2017), and Dynamic Stretching on Y Balance Test Performance (Student Scholars Day 2017).

Leadership Activities: Vice President of Philanthropic Services of the Kappa Beta Chapter of Sigma Kappa, Health and Wellness Chair of the Kappa Beta Chapter of Sigma Kappa

Activities/Awards: Deans List

Internship/Practicum experience: Indian Trails Camp Councilor

Greatest accomplishment while at Grand Valley: My greatest accomplishment at GV has to be gaining the confidence to move 2,000 miles away.

Plans after graduation: After graduation, I am moving to Seattle to continue my education and pursue a career in Occupational Therapy.

Senior Project title: Impact of Standing on Power Output during Sprint Cycling in Females

Summary of senior project:

Upon the completion my freshman year of college, I was taken under the wing of Dr. Jeffrey Potteiger and Dr. Ross Sherman to conduct undergraduate research on Wingate testing. With the help of the Office of Undergraduate Research, I was able to conduct my research through the Student Summer Scholar (S3)

Juliana Barla, Therapeutic Recreation, Minor in Psychology



Senior Project title: Grandparents Raising Grandchildren

Summary of senior project: I created a program plan specifically for the population of grandparent caregivers and how Recreational Therapy can help with coping of common stressors, resource education, leisure adaptation and education, and increasing quality of life. I hope to implement this program in West Michigan in the future, and will also be sharing it for other communities to adapt for their grandparent caregivers in their area as well.

Research and presentations: Literature Review on Grandparents Raising Grandchildren. Presented alongside my Therapeutic Recreation Professor Dr. Dawn DeVries at the second annual Great Lakes Student Conference at Indiana University's Bradford Woods on Saturday, April 8th 2017 as well as presented at Student Scholars Day April 12th, 2017.

Leadership Activities: Vice President (1 year) and President (2 years) of the Synchronized Ice Skating Club Team and Treasurer of the Therapeutic Recreation Student Association

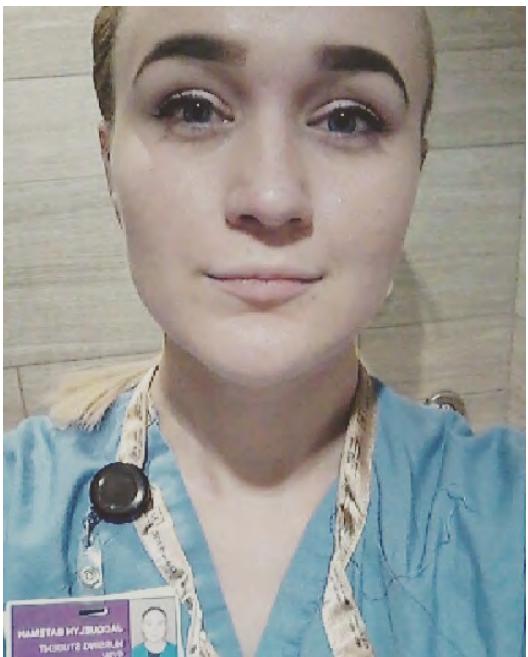
Activities/Awards: I am Grand Valley Nomination

Internship/Practicum experience: 15 week fieldwork placement with Life Therapeutic Solutions Inc. of Kent County practicing community and in home recreational therapy through the use of aquatics, transportation training, in home exercise, leisure education, leisure and recreation adaptation, and community resource education.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley would be building the community of friends and faculty that pushed me and supported me to be where I am right now.

Plans after graduation: Pass my exam to become a Certified Therapeutic Recreation Specialist (CTRS) and complete my 600 hour internship!

Jacquelyn Bateman, Nursing



Senior Project title: Compassionate Family-Centered Care Model in the NICU: A Review of the Literature

Summary of senior project: I completed a review of research related to centering nursing care in the neonatal intensive care unit around both the infant and the parents, including analysis of infant and parent outcomes. My findings were summarized in a research paper, and analysis of outcomes were presented at Student Scholars Day in the form of a poster presentation.

Activities/Awards: I am a member of Sigma Theta Tau International Nursing Honors Society, Phi Kappa Phi Honors Society, and Sigma Alpha Lambda. I am also a Samuel L. Westerman Foundation Scholarship Recipient.

Internship/Practicum experience: I had my Clinical Leadership in the Neonatal Intensive Care Unit at Helen DeVos Children's Hospital.

Greatest accomplishment while at Grand Valley: My greatest accomplishment has been successfully completing nursing school. It has absolutely been the most challenging experience of my life!

Plans after graduation: I plan to work for Spectrum Health as a registered nurse on a progressive care unit.

Leah Beaulac, Biology, Minors in Arabic and Middle Eastern Studies



Senior Project title: "The Impact of Syrian Migration on Water Demand in Northern Jordan"

Summary of senior project: Quantifying the Syrian population's demand on the Hashemite Kingdom of Jordan's limited water resources in the north. The goal is to expand on the current Refugee Crisis information data base in an effort to further assist relief efforts.

Thesis presentation: Guest presenter at Dr. Wampler's Honors World Water Issues lecture

Leadership Activities: I currently tutor Syrian, Sudanese and Iraqi students in an 'English as a Second Language' program at Union High School in Grand Rapids. While in Jordan, I was also a long term volunteer at Mabarrat Um Al Hussein (a

former Peace Corp facility), in northern Amman. The location was an all boys orphanage and a local community center for women.

Activities/Awards: Cook Leadership Academy – Independent Initiative, Advanced Arabic Study | Academic Excellence - Outstanding Graduating Senior Award, Arabic | Academic Excellence - Outstanding Graduating Senior Award, Biology | Peter C. Cook Leadership Academy Fellow, 2015-2017 | National Security Education Program (NSEP) David L. Boren Scholarship - Arabic, Jordan , 2015-2016 | Barbara H. Padnos International Scholarship - Arabic, Jordan, 2015-2016 | GVSU Award for Excellence Scholarship, 2012-2016

Study Abroad experience: Jordan: Fall 2015, Winter 2016 and Fall 2016, Oman: Summer 2014

Internship/Practicum experience: Fall, 2016, I interned at United Nations High Commissioner for Refugees (UNHCR) Amman, Jordan.

Greatest accomplishment while at Grand Valley: Receiving the Padnos and Boren international scholarships and finishing my thesis. These two accomplishments go hand and hand and I had so much support and encouragement from Grand Valley throughout the whole process.

Plans after graduation: I plan to gain more experience in the humanitarian field focusing on how water resources can support relief efforts. I will then go on to graduate school focusing on water resources and global environmental policy.

Jacqueline Beauregard, Clinical Exercise Science



Senior Project title: The Effects of Yoga on Mental Health and Physical Fitness: A Review of Literature

Summary of senior project: The purpose of my project was to explore the benefits of yoga on mental health and physical fitness in healthy and diseased populations. I found that yoga reduces stress and anxiety, decreases symptoms of depression, and improves quality of sleep. Regularly practicing yoga can also improve muscular strength and endurance, flexibility, and even reduce blood pressure.

Research and presentations: I researched the timing of carbohydrate ingestion on subsequent glucose availability and performance during aerobic exercise and presented my findings at Student Scholars Day.

Leadership Activities: I volunteered as a mentor through Big Brothers Big Sisters and as a Student Guide at many GVSU Scholarship Competitions.

Activities/Awards: I was a member of the Pre-Physician Assistant Club at GVSU and played intermural soccer. I earned the Award of Distinction Faculty Scholarship, Award for Excellence Distinction Scholarship, Felix V. and Gladys A.

Zukaitis University Honors College Scholarship, as well as made the Dean's List every semester.

Study Abroad experience: I volunteered on a medical mission trip to Peru through International Service Learning. I worked with a team of volunteers to set up and run free healthcare clinics in underserved areas there.

Internship/Practicum experience: I interned at Mercy Health St. Mary's Heart and Vascular Center working in cardiac rehabilitation, pulmonary rehabilitation, and cardiovascular testing.

Greatest accomplishment while at Grand Valley: My greatest accomplishment was getting into Physician Assistant School.

Plans after graduation: I will be attending Physician Assistant School at Wayne State University.

Brooke Bednar, Psychology, Minor in Business



Senior Project title: The Need to Play: A Review of Literature on Play Therapy

Summary of senior project: Collecting and analyzing existing research on the use of play therapy to treat trauma in children.

Leadership Activities: I held multiple positions within my sorority, Kappa Beta Chapter of Sigma Kappa that include: Assistant Panhellenic Delegate, Vice President of Philanthropic Service, and Vice President of Alumnae Relations. In addition, I served on Junior Panhellenic Council as the president during the 2013-2014 school year. I also have served on the leadership team for Greek Intervarsity Christian Fellowship while simultaneously starting and leading a Bible study within Sigma Kappa.

Activities/Awards: I was honored with the award of *New Member of the Year* of the Fall 2013 newest members of GVSU Greek Life.

Greatest accomplishment while at Grand Valley: My greatest accomplishment would be allowing these last four years to shape and grow me into the person I am today. By taking leadership opportunities, and allowing myself to be challenged I grew and learned so much. I also was able to grow in my faith, and I am so happy to know that God has led me down this path.

Plans after graduation: Beginning May 15, 2017 I will begin my coursework at Grand Rapids Theological Seminary (Cornerstone University) in M.A. Counseling.

Rachel Bellovich, Special Education and Comprehensive Science and Arts for Teaching

Senior Project title: Literacy Resources for Students in Early Childhood

Leadership Activities: I was the President of the American Sign Language and Culture Club from 2014-2016.

Activities/Awards: I was a member of the Women's Rugby Club during the 2012-13 season, a member of the Council for Exceptional Children (GVSU Chapter) from 2012-2015, and a member of the American Sign Language and Culture Club from 2012-2016. I was a recipient of the "I Am Grand Valley" Award in 2015.

Internship/Practicum experience: I did my Teacher Assisting at Grand Haven High School in the Fall of 2015. I then completed two semesters of Student Teaching, one with adults who were Cognitively Impaired at the Ottawa Area Center, and the other at Buchanan Elementary school, where I taught 3rd Grade. Most recently I completed my practicum hours at Barnes Early Childhood Center in a 3-5 year old Special Education Preschool classroom.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley was meeting an incredible group of friends who I know will be my friends for life. They are greater than any academic accomplishment that I have reached.

Plans after graduation: After graduation, I am moving back to the East Side to be close to my family and get a teaching job in the Metro Detroit area.

Nathaniel Benjamin, International Relations, Minor in Political Science



Senior Project title: A Literary Review of Research on the Potential Chinese Threat to U.S. National Security

Summary of senior project: Reviews and summarizes the published works of researchers and experts over the past few decades. The paper identifies trends in their arguments and evidence to support their conclusions on the potential threat that China poses to U.S. national security.

Leadership Activities: I was a member of the Grand Valley Swim Club and the Sigma Alpha Lambda fraternity

Activities/Awards: I received the I Am GV Award Winter 2015, 2016, and 2017. I also received the Lead Like a Laker Award six times; each semester that I was a Resident Assistant.

Greatest Accomplishment: Getting the right amount of sleep for at least 80% of my time here, while maintaining above a 3.0 GPA and working an on-campus job.

Plans after graduation: Move to Washington D.C. to find a job and continue my education in Graduate School

Sara Bickel, Nursing



Senior Project title: College Students' Challenge with Type 1 Diabetes

Summary of senior project: The goal of my project was to survey freshman and senior students at Grand Valley State University about their challenges to self-management of Type 1 Diabetes, in order to learn how institutions of higher education can assist these students. About 1 in 10 American adults have diabetes and only 5-10% of those people with diabetes have Type One. We surveyed 2,000 students at Grand Valley, and got 14 results back. Overall, there are a few different ways that GVSU can help these students throughout their time on campus. I completed a research paper about my project and the specific results I received from the survey. I also presented my senior project at Student Scholar's Day on April 12th.

Leadership Activities: I was involved with the Anchor Honors Community Council my freshman and sophomore year, and

was a member of the Student Nursing Association throughout my five semesters in the nursing program. I have been a Resident Assistant for Housing and Residence Life for three years, and have served as a leader and mentor to my residents.

Activities/Awards: I received the I Am GV Award Winter 2015, 2016, and 2017. I also received the Lead Like a Laker Award six times; each semester that I was a Resident Assistant.

Internship/Practicum experience: I have completed 1,260 total clinical hours throughout my years in the nursing program. It included a variety of different foci including community health areas, hospitals, and leadership positions. My leadership clinical site this semester was on a Gerontology floor at Mercy Health St. Mary's. I completed 160 hours there in the last 6 weeks before graduation and was able to participate in leadership meetings on that unit. I have also been working as a Nursing Technician on the Acute Care of the Elderly Unit for two years now. I worked two twelve hour shifts every other weekend throughout my junior and senior years at GVSU to gain experience in the nursing profession.

Plans after graduation: My plans after graduation are working on the Acute Care of the Elderly Unit at Blodgett hospital for Spectrum Health. I have fallen in love with working with the geriatric population, and have been offered and accepted a part time day shift on this unit. I am ecstatic to say I will be traveling to Europe with another GVSU student who is graduating in May, and will be taking my nursing licensure boards after I return. I hope to start orientation on the ACE Unit in June, as Sara Bickel BSN, RN.

Victoria Biniecki, Exercise Science with an emphasis in Health and Fitness Instruction



Senior Project title: Smart Strength Nutrition

Summary of senior project: My senior project is a nutrition website dedicated to providing scientific based knowledge to users at any stage of their fitness journey.

Research and presentations: Completed research pertaining to The Effectiveness of Myofascial Release on Delayed Onset Muscle Soreness.

Leadership Activities: Former member of the E-board for the Exercise Science Club.

Internship/Practicum experience: Completing senior internship with Northern Physical Therapy.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley was representing the University at conferences while networking with various professionals in the Exercise Science field. Completing 4 years in the Honors Program is a close second.

Plans after graduation: After graduation I plan to take the knowledge of exercise and business I have accumulated throughout my undergraduate career and pursue entrepreneurial endeavors.

Megan Boerema, Behavioral Neuroscience



Senior Project title: Drumming Past and Present: Examination of Historical and Current Medicinal Effects

Summary of senior project: I wrote a literature review examining the use of drumming for medicinal purposes in both the past and the present.

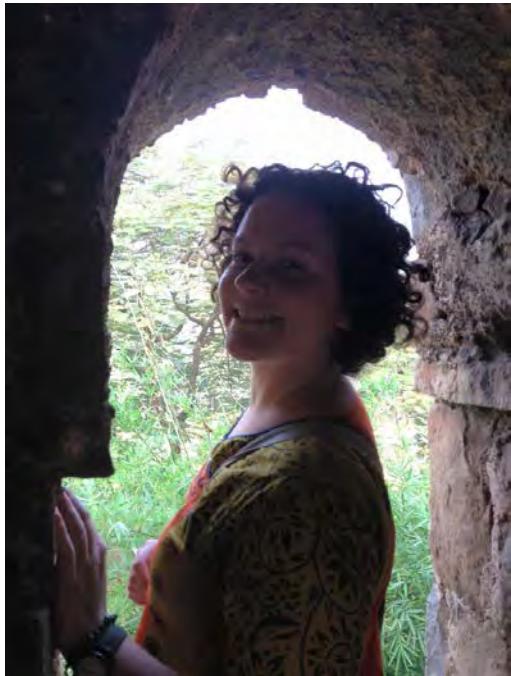
Leadership Activities: I served as the Education Vice President of Gamma Phi Beta Sorority. In this executive board position I oversaw the planning of the scholarship program, new member education, and chapter bonding experiences. Also, I was a Teaching Assistant for a genetics laboratory class.

Activities/Awards: I volunteered as a Transitions Leader in the fall of 2015 and 2016 and helped guide freshmen through their first few days on campus while educating them on the values and guidelines of the university. I partook in IFC's Steps against Sexual Assault programming where attendees were educated about active bystander intervention. I was also a participant in frequent fundraisers benefitting Girls on the Fun.

Greatest accomplishment while at Grand Valley: During my tenure as Education Vice President of Gamma Phi Beta, we earned the Chapter of Excellence award and also held the highest overall chapter cumulative GPA among all Greek organizations. Achieving these honors was validation that my efforts on the executive board had influenced the scholastic and communal achievement of my peers.

Plans after graduation: I hope to start graduate school in the fall of 2018 to get my masters in Occupational Therapy.

Rachel Borashko, Statistics & Sociology, Minors in Mathematics & Religious Studies



Summary of senior project: For my senior project, I collaborated with another Honors student on the Work Types project. My role in the Work Types project was to analyze survey data from area and international businesses with the goal of finding a relationship between a person's Myers-Briggs personality type and physical space.

Research and presentations: I have participated in other research through my statistics courses such as the analysis of survey data regarding internships for the Career Center which I presented at Student Scholars Day. I also participated in a research program at Carnegie Mellon University last summer where I had the opportunity to work on a project predicting national flu trends.

Leadership Activities: This year, I have also had the privilege of serving as president of the GVSU chapter of the statistical honor society Mu Sigma Rho.

Study Abroad experience: In addition to these incredible opportunities, I spent a semester abroad in India which helped me develop an appreciation for other cultures and religions.

Plans after graduation: This summer I will be a Field Interviewer for Calvin College's Center for Social Research's Survey of Congregations in the Greater Grand Rapids Area. I am dedicated to being a lifelong learner, and I plan to get a Master's degree in the near future.

Brittany Bordewyk, Mathematics with Secondary Education Emphasis



Senior Project title: "Identity: A Transformational Game"

Summary of senior project: Researched, developed, and created a board game on geometric transformations in the co-ordinate plane for use in middle school and high school classrooms.

Research and presentations: At same time of senior project, researched, developed and created a version of UNO on equivalent fractions. Completed research and a paper on the commonalities and differences of mathematics education in the United States and Tanzania.

Leadership Activities: Student Co-ordinator of Math-In-Action.

Internship/Practicum experience: Teacher Assisting at Grandville Middle School, and Student Teaching at Allendale High School.

Activities/Awards: Department of Mathematics Senior Award, Association for Women in Mathematics membership, Pi Mu Epsilon National Honorary Mathematics Society Membership.

Study Abroad experience: GVSU Arusha, Tanzania Study Abroad – a month teaching math in a local school. GVSU Ourense, Spain Teacher Assisting Study Abroad.

Greatest accomplishment while at Grand Valley: Participating in two study abroad programs and graduating with three minors (Economics, Mathematical Statistics, and Studio Art).

Plans after graduation: To become an inspiring middle or high school math teacher at a local school and continue to travel the world.

Anna Bouwkamp, Writing and History, Minor in English



Senior Project title: From Shelf to Screen

Summary of senior project: Anna expanded her knowledge of the publishing world by researching how the emergence of the digital market has changed how books are promoted and sold.

Leadership Activities: Editor for a publishing house, editor for the Grand Valley Journal of History, a writer and copyeditor for the *InWriting* department newsletter, and a reader for the *fishladder* undergraduate publication. Anna also worked as a consultant at the Fred Meijer Center for Writing and Michigan Writers.

Activities/Awards: Nominated for the Niemeyer Award and History Major Award.

Research: Researched the memory of Anastasia Romanov, the importance of the arch in Roman civilization, warfare in Ancient Mesopotamia, and transportation methods and advances in downtown Grand Rapids for the last hundred years.

Internship/Practicum experience: Anna interned with Dzanc Books as an editorial intern, helping evaluate the short story competitions, researching potential books markets, and organizing release schedules for the next year.

Sierra Bulson, Political Science, Minors in International Relations & Criminal Justice



Senior Project title: "Representation in Local Government: Measuring Michigan's Gender & Diversity Gap"

Summary of senior project: After experiencing international and national politics, Sierra decided to focus on local government for her senior project. Working with the Michigan Association of Counties and 84 county administrators, Sierra collected demographic data on each county commission board. Her project compares local county commission boards with the counties they represent. This project seeks to shine light on portions of the population that remain underrepresented in local government with little influence on the policies and decisions that shape their everyday lives. Her project presents a case on why lack of diversity in government is a problem and how everyone can benefit when all voices have a seat at the table.

Leadership Activities: Sierra has served in various leadership roles on campus as Vice President of Pi Sigma Alpha Political Science Honor Society, Parliamentarian and Scholarship Chair of Phi Sigma Pi National Honor Fraternity, and as a Cook Leadership Academy Fellow in the Hauenstein Center for Presidential Studies. As a senior, Sierra was selected as a Kathy A. Agard Fellow in Community Philanthropy and spent her senior year working at the Johnson Center for Philanthropy. In this role, Sierra worked on the *Our State of Generosity* (OSOG) project where she gained an appreciation for Michigan's history as a philanthropic leader. She also assisted *The Grantmaking School* with curriculum development for foundation and donor learning.

Activities/Awards: Sierra is a Pi Sigma Alpha McManus Scholar, and has received other awards, including the "I am Grand Valley" Leadership Award, the GVSU Presidential Scholarship, the John T. Batchelder political science scholarship, and the Paul B. Henry Congressional Fellow scholarship.

Study Abroad experience: As a junior, Sierra embarked on a semester long journey, studying Czech, European history and politics, and Diplomacy at Charles University in Prague, Czech Republic. While abroad, Sierra also participated in a field study analyzing the politics and cultures of Prague, Czech Republic; Vienna, Austria; Budapest, Hungary; and Bratislava, Slovakia.

Internship/Practicum experience: Sierra has been blessed with many awesome opportunities. As a sophomore, Sierra was the GVSU Women Center's Ready to Run Michigan intern where she worked with a local political consulting firm to plan and execute a day long workshop in Saginaw, Michigan. Ready to Run Michigan is a nonpartisan campaign training program aimed at encouraging women and other underrepresented portions of the population to embrace their own political ambitions, learn more about the political system, or become more involved in public life. Sierra recruited over 50 participants and raised over \$1,500 in sponsorships for this workshop.

Sierra also spent the summer before her senior year in Washington, D.C. interning on Capitol Hill for Congressman Dan Kildee (MI-05) and studying international organization and humanitarian law. As an intern, Sierra's proudest accomplishment was presenting two co-sponsor recommendations on recently introduced legislation to the Congressman on which he decided to sign on to and cosponsor.

Greatest accomplishment while at Grand Valley: She considers being a Cook Leadership Academy Fellow her greatest accomplishment while at Grand Valley, and recommends getting involved with the Hauenstein Center for Presidential Studies to every student at Grand Valley. As a Fellow, Sierra deepened her capacity for leadership, gained a group of great friends and mentors, and a dedication to public good.

Plans after graduation: After graduation, Sierra will take a couple years to further develop and expand her skillset in the workforce before continuing her studies at the graduate level.

Mallory Caillaud-Jones, Theatre



Summary of senior project: A documentary focusing on three local artists that delves into the difficulties and joys of the pursuit of an art career, the importance of art from an early age, act as activism, and the universality of art. It looks into how society treats individuals who pursue careers that are too often deemed impractical or a waste of time and money and introduces audiences to the art forms of dance, song, poetry and illustration.

Activities/Awards: Outstanding Major in Theatre Award (2017), GVSU Shakespeare Festival Student Competition-1st place (2016), Final Round of KCACTF Region III Competitor (2015), Alexander Calder Honor Art Scholarship (2015)

Study Abroad experience: Nice, France (Summer 2012) and Paros, Greece (Winter 2015)

Greatest accomplishment while at Grand Valley: Traveling abroad multiple times throughout my college career!

Plans after graduation: Apply to theatre internships abroad.

Kaylee Case, Nursing



Senior Project title: Factors That Have Influenced Infant and Maternal Mortality in Ghana: A Review

Summary of senior project: This project is both a literature review and a summary of an observational visit to Ghana, West Africa. The study aims to understand the factors and health indicators that have influenced the recent decrease in infant and maternal mortality rates in Ghana.

Leadership Activities: Small group leader in Intervarsity Christian Fellowship for two years.

Activities/Awards: Involved in Student Nurses Association (SNA). Nominated by peers for the Banta/Perkins Nursing Excellence Award. On the Dean's list for all semesters that qualified.

Study Abroad experience: Cape Coast, Ghana (March 3rd-17th 2017)

Internship/Practicum experience: Clinical (long-term care, medical/surgical, psychiatric, obstetric, and pediatric) at local hospitals for the last five semesters. 160 clinical immersion hours completed on the Mother/Baby unit at Spectrum Health Butterworth during my last semester.

Greatest accomplishment while at Grand Valley: Surviving nursing school with a high GPA.

Plans after graduation: Take boards (NCLEX) in June and obtain employment as a Registered Nurse (oncology or obstetrics) in the Grand Rapids area (preferably at Mercy Health St. Mary's).

Lauren Clark, Recreational Therapy



Senior Project title: Freedom of Choice versus Rate of Satisfaction in the Elderly Population

Summary of senior project: My senior project consisted of an Independent research study at a residential care facility. This study assessed how freedom of choice versus rate of satisfaction is correlated among the elderly population. This study used a two condition experiment to asses if choice was linked to activity satisfaction. The results of this study were statistically significant in finding that freedom of choice is directly related to life satisfaction.

Research and presentations: Presenter at the Mid-East Honors Association Conference, Student Scholars day participant

Leadership Activities: Three year Kids in Motion President, Two year Transitions Leader, organized and held a 5K to help benefit the GVSU food pantry, lead an alternative spring break trip to volunteer at Make-A-Wish Foundation.

Activities/Awards: I am Grand Valley Leadership Award, National Collegiate Honors Society Award, Grand Finish Scholarship Award.

Internship/Practicum experience: I completed a fieldwork experience at Camp Aranzazu in Texas. This is a Camp for children with chronic illness. I will complete my internship this summer at Bradford Woods, a recreational facility for kids with special needs.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley was the student organization that I was President of, Kids in Motion. Kids in Motion is a service and advocacy organization at GVSU that focuses on college volunteers acting as a role model and making a positive impact on underprivileged children around West Michigan. During my time as the President the club grew from 25 members to 130 members. Kids in Motion is now impacting the lives of over 900 underprivileged children. Making this club into the success that it is today and giving college students the opportunity to change lives and inspire the younger generation every day is my greatest accomplishment while at Grand Valley.

Plans after graduation: Attending Grand Valley's Masters of Occupational Therapy Graduate School program

Angela Connop, Nursing



Senior Project title: Sexual Assault Services Bronson Battle Creek Quality Improvement Project

Summary of senior project: For my project, I collected satisfaction surveys from patients of the Bronson Battle Creek Sexual Assault Nurse Examiner program. Using survey responses, I identified excellent aspects of care as well as areas for growth, and presented these findings to the program staff.

Research and presentations: Community Health Nursing Capstone Presentation: Improving Coping Skills in Caregivers of Older Adults with Dementia.

Leadership Activities: Volunteer Advocate for the YWCA's Sexual Assault Nurse Examiner Program and Crisis Line

Internship/Practicum experience: Completed 160 clinical hours on the Redwood Co-Occurring Psychiatric Illness and Addiction Unit at Pine Rest Christian Mental Health Services.

Greatest accomplishment while at Grand Valley: Finding a career in which I can pursue my passion of supporting individuals who have experienced traumatic events in their lives.

Plans after graduation: I plan to transition into an RN position on the Co-Occurring Psychiatric Illness and Addiction unit at Pine Rest. I hope to later pursue Sexual Assault Nurse Examiner certification, and use this expertise to improve the quality of resources available to survivors and increase public knowledge on the issues of sexual assault and gender-based violence.

Brittany Costantini, Communication Studies with emphasis in Multimedia Journalism, Minor in Hospitality and Tourism Management with emphasis in Event Planning and Management



Senior Project title: Finding meaning through art: An analysis of communicating effectively to a mass audience through events

Summary of senior project: I used my experiences from my internship to compare two pieces of art by an artist from ArtPrize. I analyzed how communication concepts can affect the outcomes of the artwork's impact on a mass audience and this enabled me to provide recommendations for artists in future events similar to ArtPrize.

Research and presentations: I did

research on behalf of the GVSU Speech Lab regarding the incorporation of video consultations into communication center services. I then presented this research at the National Association of Communication Centers Conference. I also presented my work from the Design Thinking to Meet Real World Needs at the Michigan State University Food Justice Conference

Leadership Activities: I led a small group at St. Pius X youth group along with planning and executing large group sessions and retreats. I was also the head of the National Association of Communication Centers planning committee.

Activities/Awards: I received Consultant of the Year and Outstanding Undergraduate Research at the Grand Valley Speech Lab as well as the I Am Grand Valley leadership award in 2016-2017.

Internship/Practicum experience: I interned with the director of the St. Pius X youth ministry and with ArtPrize artist Pamela Alderman.

Greatest accomplishment while at Grand Valley: Working as a speech consultant the past two years and having the opportunity to help hundreds of student on speeches and presentations while empowering them as speakers.

Plans after graduation: I will be working at a YMCA Camp as a program director and plan on returning to Grand Rapids in the fall to pursue a career in the hospitality industry.

Emily M. Crance, Public and Nonprofit Administration, minor in Religious Studies



Senior Project title: The History and Evolution of Tattoos and Cultural Perceptions and Values

Summary of senior project: For my senior project, I completed my 3-credit research paper on tattoos, as a junior at Grand Valley. I wrote about the historical significance and meanings of tattoos across cultures and time. I argued that many of the motivations and themes behind tattooing today are present universally and throughout history.

Activities/Awards: I was a Freshman Honoree of Phi Kappa Phi for maintaining a 4.0 GPA, and I have now been inducted into the honor society of Phi Kappa Phi. I have been on the GVSU Dean's List all eight semesters. I also completed the Frederik Meijer Honors College curriculum a year early. Additionally, I have been very active with InterVarsity's international student group and Bible study.

Internship/Practicum experience: I spent summers of my sophomore and junior year doing my internship at the Jackson College Foundation. As a nonprofit major I enjoyed learning about the philanthropic activities of a higher education foundation. I did everything from event

planning, to attending budgeting meetings. I even had the chance to be involved in the scholarship interviews and selection, which was very rewarding.

Greatest accomplishment while at Grand Valley: My greatest accomplishments at GVSU would include achieving and maintaining my 3.88 GPA, and graduating from the Frederik Meijer Honors College.

Plans after graduation: I am getting married in May of this year! I will also be working while taking some time to discern plans for graduate school.

Sarah Cullip, English and German Secondary Education



Senior Project title: Refugee Resettlement and Integration into Education: Policy, Personal Experience, and Potential

Summary of senior project: Through a research internship with Samaritas, a local refugee resettlement agency, I studied the policy and process surrounding refugee resettlement on both a national and local scale. Additionally, I collaborated with the Refugee Education Center in Kentwood to examine the policy and process of integrating refugee students into American K-12 institutions, as well as exploring the support services that are available to this population upon enrollment. This research aims to improve refugees' experiences with resettlement and integration into education.

Research and presentations: In March, I co-presented with English professor, Laura Vander Broek, on considerations for teaching refugee learners at the ECIS English as a Second Language and Mother Tongue conference in Copenhagen, Denmark. Then, in April, I featured a poster on my innovative

use of technology in teaching refugees at the National Geographic & Michigan State University Learning Symposium. Professor Vander Broek and I also presented a poster at the Civic Engagement Showcase to highlight the partnership between GVSU's ENG 469: ESL Teaching Practicum and four Grand Rapids community partners: Samaritas, Bethany Christian Services, Word ESL, and Literacy Center of West Michigan.

Leadership Activities: I am the Women's Cross Country team representative on the Student-Athlete Advisory Committee.

Activities/Awards: I am a member of the Women's Cross Country and Track & Field teams at Grand Valley. I was also on the Women's Basketball team at Grand Valley during the 2015-2016 season. Recently, I received the Academic Excellence Award in both of my majors, English and German, and am the recipient of the Gilbert & Patricia Davis English Merit Scholarship.

Study Abroad experience: In the Summer of 2015, I studied abroad for 7 weeks through the University of Kansas' Summer Language Institute in Holzkirchen, Bavaria.

Internship/Practicum experience: I've completed an ESL Teaching Practicum experience through the class English 469 at Grand Valley. For my Honors Senior Project, I held a research internship at Samaritas, and I am currently a curriculum design intern at the Refugee Education Center, helping to craft their summer school curriculum.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley is being granted a Fulbright English Teaching Assistantship in Germany for the 2017-2018 academic year.

Plans after graduation: After graduation, I will be traveling to Maastricht, Netherlands to be an administrative assistant and study abroad liaison to the EAL Staff at the international school UWC Maastricht for the month of May. In September, I will leave to begin my Fulbright English Teaching Assistant year in Germany. ☺

Jessica Curry, Dance & Management



Senior Project title: Dans Ayiti

Summary of senior project: This past summer I had the opportunity to study abroad in Haiti for a month and thought it'd be stimulating to learn more about Haitian dance and how it compares to American dance (what I've been studying for the past four years). This project is unique because there isn't a lot of exploration of cultural dance in our dance curriculum. We learn about cultural dance and dances across the world in our dance history classes but we don't get firsthand experience with it. In conclusion, my honors project was a paper linked with videos that held the actual dancing that I experienced while I was in Haiti. It explored the various differences and similarities between the two cultures and how dance was portrayed and used in various methods.

Research and presentations: DAN 495 Senior Capstone (Fall 2016), MGT 337 Supply Chain Management Research, Project and Presentation (Fall 2016)

Leadership Activities: Brighton Dance Festival Intern (2014)

Activities/Awards: Beta Gamma Sigma Honors Society (2017), Momentum Dance Club (2013 – 2016), GV Laker Scholarship, Grand Finish Grant, Fred Bell Business Scholarship

Study Abroad experience: Haiti Service Learning Study Abroad 2016

Internship/Practicum experience: DAN 420 Pedagogy (Winter 2017)

Greatest accomplishment while at Grand Valley: My greatest accomplishment would be having the opportunity to study abroad in a developing country while being able to study what I enjoy the most, dancing.

Plans after graduation: This summer I plan to move to Chicago where I have a work-study lined up at Hubbard Street Dance Chicago. From there I plan to see where this job takes me and who I meet through this wonderful opportunity.

Connor Dailey, International Relations



Senior Project title: Presidential Popularity in Authoritarian Regimes: Popular Support and Regime Dynamics in Kazakhstan and Kyrgyzstan

Summary of senior project: Taking a comparative systems approach, this project explores the sources of popular support for authoritarian presidents in Kazakhstan and Kyrgyzstan, arguing that these presidents are not at the mercy of the public regarding popular support. Rather, the presidents can actually manage popular support.

Leadership Activities: Vice President of the GVSU Model United Nations Club and Special Event Coordinator for the GVSU International Relations Organization

Activities/Awards: Multiple Deans List recipient, recipient of the Paul B. Henry Fellowship.

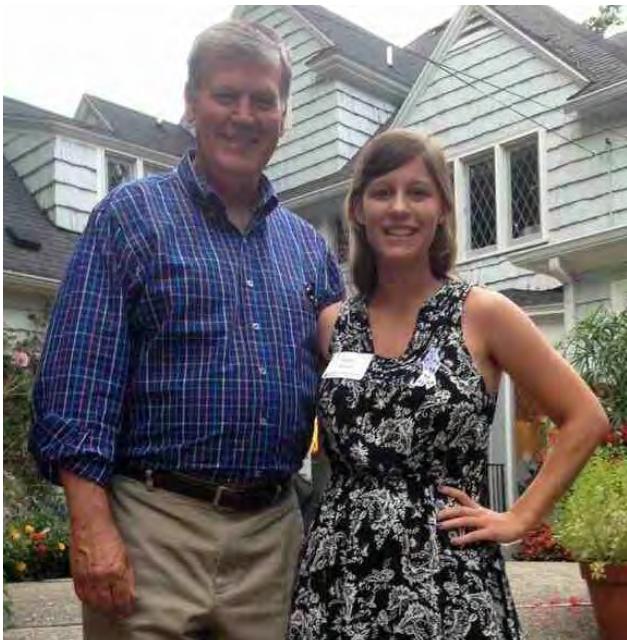
Study Abroad experience: One year abroad in Krakow, Poland for GVSU's Studies in Trans-Atlantic International Relations (STAIR) program.

Internship/Practicum experience: Congressional internship to be completed Summer 2017.

Greatest accomplishment while at Grand Valley: Receiving the Paul B. Henry fellowship or introducing myself to the head of my major's department by the wrong name. It's a close call.

Plans after graduation: Complete two internships, one in Summer 2017, one in Fall 2017. After this, hopefully working at a think tank/policy institute or political strategy group.

Kaitlyn Denney, Biology (Pre-Vet)



Senior Project title: Impact of Contemplative Practices in Physics Classrooms.

Summary of senior project: My senior project looked at the effect contemplative practices, such as deep breathing and focused concentration exercises, had on students in high stress physics classrooms. Although we didn't find a significant reduction in stress due to unaccounted for variables, contemplative practices have been shown in other studies to help reduce students stress. Therefore, the use of contemplative practices could benefit college students and further research should be conducted.

Research and presentations: Other research I have conducted at GV includes studying an algal toxin that effects the liver. I looked at the levels of this toxin in game fish and bats collected from

throughout Michigan to see how those levels impact the environment and animal health. I presented this research at GVSU's Student Scholar Day and at the North American Society for Bat Research Annual Symposium.

Leadership Activities: I was a Resident Assistant, Honors College Mentor, and an Ambassador for the Office of Undergraduate Research and Scholarship.

Activities/Awards: I was a member of Kids in Motion, Pre-Vet Club, Yoga Club, Treat Yourself, and Biology Club. I was a recipient of a Student Summer Scholar grant, "I am Grand Valley" award, and GV Award for Excellence.

Greatest accomplishment while at Grand Valley: Having meaningful experiences and connections that have widened my world view and given me the tools to make an impact in my community.

Plans after graduation: Attend Michigan State University's College of Veterinary Medicine and continue to have countless adventures.

Brittney DesLauries, Comprehensive Science and Arts for Teaching; Special Education



Senior Project title: Bringing East Asian culture into the elementary classroom

Summary of senior project: During my freshman year my Honors sequence was East Asian Civilization. I had always found this topic interesting, but had not really gone into depth on it during my high school education. Because the world is becoming more globally focused and my beliefs that understanding the history of a culture helps us to be more accepting of its members, I created lesson plans to teach 4th graders about two eras in Japan and China's history. The lessons focus on going deeper than showing traditional dress and music. The focus is on the students taking in new ideas and perspectives, processing those, and having non-judgmental conversations about them.

Activities/Awards: Recipient of the Excellence-In-A-Discipline Award for Comprehensive Science and Arts for Teaching; Finalist for the Frederik Meijer Honors College Outstanding Senior Award

Internship/Practicum experience: Through my program I have been placed at several different schools, but my favorite was at a community based instruction school in Grand Haven. The program was for 19 - 26 year olds with mild to moderate disabilities focused on community involvement and daily living skills. The best part of this experience was how open and accommodating most people and businesses were for my students. Coming from a small town where most people view persons with disabilities as "less than" it was refreshing to see that not everyone holds that perspective.

Greatest accomplishment while at Grand Valley: My greatest accomplishment has to be all of the great memories I have made. I have made great friends and colleagues and have gotten to be a part of so many students' lives. I have learned a lot, not only about academia but my own perspective on the world. I have also learned that I can accomplish my dreams, no matter what stands in my way.

Plans after graduation: I plan to become an educator of elementary students, preferably those with emotional impairments in a self-contained or center based school setting.

Leah DeVries, Biomedical Science, Pre-P.A. emphasis



Senior Project title: The Beliefs and Usage of Electronic Cigarettes in GVSU Undergraduate Students

Summary of senior project: My senior project consisted of background research, an online survey, and analysis of the survey's results. The survey focused on the beliefs about the usage of e-cigarettes in GVSU students, and an analysis on what they knew about the toxicity of electronic cigarettes. In addition, it looked at the overall usage of e-cigarettes in GVSU students and the reasons why they use them.

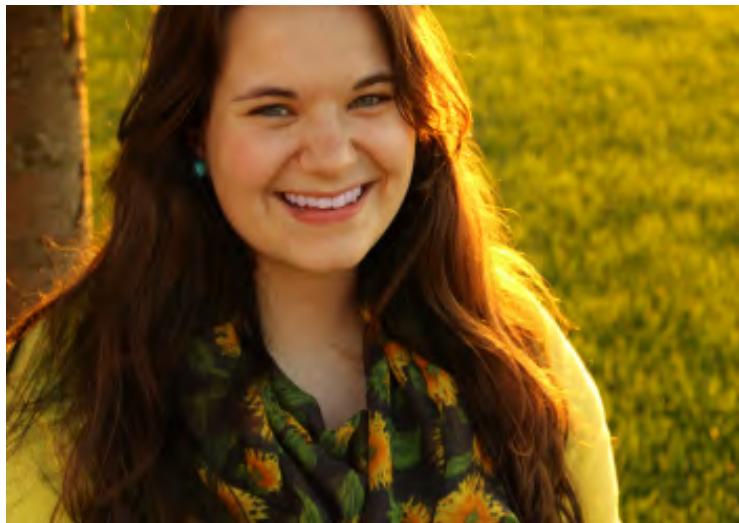
Research and presentations: Toxicity of Electronic Cigarettes; Major and Anxiety among GVSU Undergraduate Students; The Emergence of the Physician Assistant; Physician Assisted Suicide – Ethical Analysis

Activities/Awards: Students for Life, Pre-PA Club

Greatest accomplishment while at Grand Valley: My research into electronic cigarettes

Plans after graduation: Physician Assistant School

Paige Dhyne, Writing & Film/Video



Senior Project title: Online Information Literacy Module for Freshman Composition Students

Summary of senior project: As a writing consultant, Paige realized that students did not actively know how to search and evaluate information to incorporate in their writing. In response, she built an Open Access information literacy module that is meant for use in the GVSU freshman composition course. All parts of the module are customizable, so other courses at GVSU can adapt them or even other universities. The module defines academic terms and then applies the

terms through active learning. Each part of the four-part module covers a different part of the research and writing process, and while it is not meant to replace library instruction, it helps bridge the gaps for students who do not interact with librarians in or out of the classroom.

Leadership Activities: Paige is a Lead Writing Consultant at the Fred Meijer Center for Writing and Michigan authors.

Activities/Awards: Paige is active in several student publications for the Writing Department, serving as a copyeditor for *InWriting* and a nonfiction reader for *fishladder*. She was the Writing Department's nominee for the Glenn A. Niemeyer Award for 2015-2016. She has received the I Am Grand Valley Award twice and the Distinction in Writing Award.

Internship/Practicum experience: Paige interned at the Cook Library Center developing K-8 writing curriculum for ESL and underprivileged students. She worked as a professional copyediting/writing intern in 2016-2017 with The Walt Disney Company for *Disney Institute*, TWDC's business consulting, training, and education firm.

Greatest accomplishment while at Grand Valley: Her greatest accomplishment was learning how to follow her passions. Trying, failing, and reassessing was a large part of her education.

Plans after graduation: She will be attending the University of Illinois Urbana-Champaign iSchool for her masters in library and information science with a focus in academic librarianship. There, she will conduct a graduate assistantship teaching freshman students information literacy principles.

Dominique Donatelli, Biomedical Sciences



Senior Project title: an Examination of Dental Trait Variation within Chiropteran Species

Summary of senior project: For extinct species, classification is based on morphological characteristics. For primate species, dental traits can be utilized. My senior project focused on examining these dental traits within a number of specimens and evaluating the variability seen within the species. The purpose of this was to illustrate that some traits, which are currently used, may not be accurate for species delineation; that is to say, these traits present with a lot of variation and may result in improper classifications. I presented a poster at Student Scholars Day and also wrote a paper on my findings.

Research and presentations: I have been actively pursuing research in this field since my sophomore year at GVSU, working with Dr. Stroik in the Biomedical Sciences department. In summer of 2016 I went on a paleontological field work trip to the Uintah Basin of Utah to look for new fossil specimen.

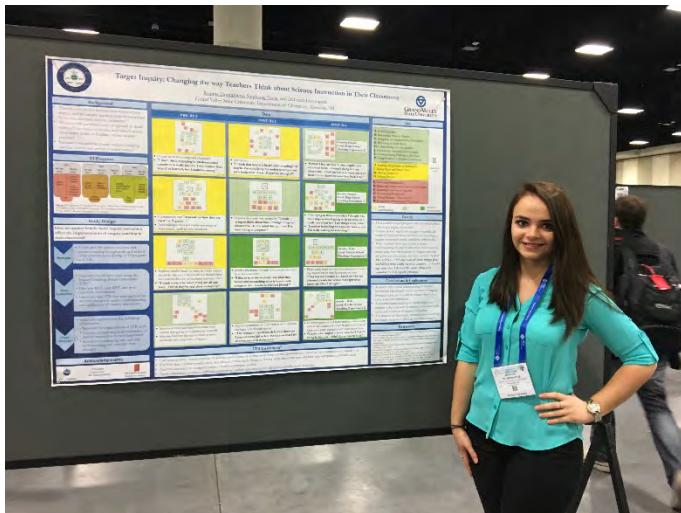
During this trip I camped in the dessert, without electricity or running water, and spent hours looking for fossils. It was an incredible trip and unlike anything I thought I would have the chance to experience.

Activities/Awards: While attending Grand Valley, I was a member of Pre-med club, Peace MEans, Arab Culture Club, and the Model Arab League. I was named a Phi Kappa Phi freshman honoree and was later inducted as a junior into this academic honor society.

Greatest accomplishment while at Grand Valley: I feel that my greatest accomplishment while at Grand Valley was getting accepted into medical school. Medicine has always been my passion but I came to GV as a freshman very fearful of having what it would take to become a physician. After four years of classes that challenged me academically and experiences that pushed me on a more personal level, I no longer worry if I have what it takes. I am confident that this career is right for me and that I will succeed in this field.

Plans after graduation: After graduation I plan to attend the University of Michigan Medical School. I am very excited about pursuing my medical degree at such a phenomenal institution. At this time, I am not sure what specialty or field I will go into.

Roxana Dumitache, Biomedical Science



Senior Project title: Changes in Teacher Understanding and Implementation of Inquiry Instruction

Summary of senior project: The Target Inquiry (TI) program aims to increase the frequency and quality of inquiry-based instruction in middle and high school science classrooms. As part of the senior project, we looked at how teachers' understanding of inquiry-based instruction and their instructional practices changed over the course of the TI program. We found that teachers developed more insightful knowledge about inquiry instruction, and

were more confident and efficient at implementing practices in their classrooms which allowed students to explore scientific content in authentic ways.

Research and presentations: I presented research about the Target Inquiry Program at the American Chemistry Society National Convention in San Diego in 2016. I also presented research on the topic of Antibiotic Resistance at the Grand Valley Student Scholars Day 2017.

Leadership Activities: Recruitment Adviser, Service Committee Chair, and Treasurer of Phi Sigma Pi National Honor Fraternity

Activities/Awards: I was a Phi Kappa Phi Honoree. I received the General Chemistry Award in 2014. I was a member of Sigma Kappa Lambda National Honor Society. I was a member and leader of Phi Sigma Pi National Honor Fraternity.

Greatest accomplishment while at Grand Valley: My greatest accomplishment is having been able to participate in research here at Grand Valley and to have had the opportunity to present it at a national convention!

Plans after graduation: Will be attending the University Of Michigan - College Of Pharmacy!

Rachel Eaton, Biomedical Sciences & Biology, Minor in Chemistry



Senior Project title: Hierarchy in the Medical Field

Summary of senior project: I am studying different forms of hierarchy among health professionals in order to discover where and why these hierarchies do or do not exist. I am also examining the effects of these relationships on the medical professionals themselves as well as their patients. A few areas of interest include regional differences, generational differences, and specialty differences in hierarchical structure. Due to the large number of GVSU students seeking entry into one of the health-related professions at various levels of profession, and due to the increasingly large medical community in the Grand Rapids area, this study will be of interest to the University and West Michigan communities.

Leadership Activities: I was a Transitions Leader for GVSU Office of Student Life for 3 years, the Vice President of Administration for Alpha Omicron Pi Fraternity, a Teaching Assistant for Anatomy Laboratory for the GVSU Biomedical Science Department, and the Vice President of Academic Development for Alpha Omicron Pi Fraternity.

Activities/Awards: In my time at Grand Valley, I have been involved in Alpha Omicron Pi Fraternity, Pre-Med Club, Alternative Breaks, Intramural Soccer team for GVSU Recreation, and American Red Cross Club. I have been inducted into Order of Omega Greek Honorary Society and Phi Kappa Phi National Honors Society. Additionally, I have earned the Biomedical Sciences Graduate of Distinction Award for 2017, two Outstanding Biology Major Award nominations, several I Am Grand Valley Awards, the Award for Excellence, and the Award of Distinction Faculty Scholarship.

Internship/Practicum experience: While attending Grand Valley, I have shadowed an Otolaryngologist (ENT) and his residents in his clinic and in the operating room, volunteered at McLaren Macomb Hospital, participated in a volunteering trip with Alternative Break's to Arkansas Children's Hospital in Little Rock, Arkansas, and received my Phlebotomy Technician Certification.

Greatest accomplishment while at Grand Valley: I believe my greatest accomplishment while at Grand Valley was earning the honor of Graduate of Distinction for the Biomedical Sciences Department.

Plans after graduation: It has always been my plan to attend medical school. I want to be able to give back to the world that I was raised in, and ensure that I can use my skills and training to better the community. I hope to be able to bring new medical advances to Michigan's hospitals as a physician. In medical school, opportunities are available for medical students to pursue that are ideal for entrance into advanced residency programs, and into a diverse array of specialties in the medical field. As a medical student, I will have the opportunity to provide various aspects of service to hospitals and make a difference in the surrounding community through hands-on community-based learning. I plan to further pursue my education as a future medical student.

Gabriel Ellis, Music

Senior Project title: "Towards a Reception History of High Male Singing"

Summary of senior project: A lecture-recital on the history of the countertenor voice with performances of music ranging from Renaissance lute songs to works by a living composer.

Research and presentations: A Student Summer Scholars project on music video, which I have presented at conferences in Chicago and Maynooth, Ireland, and a B.A. senior research project on Offenbach's opera *Les Contes d'Hoffmann*.

Leadership Activities: Co-founder of the GVSU Music Forum, 2015-2016 Assistant Editor-in-Chief of the Grand Valley Journal of History, and two-year trumpet section leader of the Laker Marching Band.

Activities/Awards: 2016 Academic Excellence in Music award, 2016 Alexander Calder Honors Scholarship, 2015 Student Summer Scholars award, and two-year 1st prize winner in the Music Department Writing Competition. Participated in more than ten musical ensembles and numerous other extra-curricular groups.

Greatest accomplishment while at Grand Valley: Starring as Mr. Spindly the Clown in a music video with my indie-rock band, The Lake Effects.

Plans after graduation: A fully-funded PhD program in Historical Musicology at Stanford University.

Ashlyn Enokian, Biology, Minor in Criminal Justice



Senior Project title: *Ethical Concerns in Genetic Counseling*

Summary of senior project: She used her senior project to study the controversies surrounding current medical techniques, specifically in relation to genetic counseling and testing. This project serves as an ethical guide when facing concerns in her future profession.

Leadership Activities: Ashlyn was highly involved throughout her four years at GVSU. She spent much of her time participating in sports, such as intramural volleyball and the dance troupe. She co-created and served as the Vice President of the university's first archery team where she competed in recurve, earning 1st place in her final competition junior year. She lived her passion through service, volunteering in

senior assisted living complexes through the Senior Citizen Club. She spent time working with the Grand Rapids community through the Women in Science, Technology, Engineering and Math Club, where she conducted science experiments with young children to increase interest and awareness of STEM fields, ultimately serving as the Treasurer and Public Relations officer her senior year. After setting her sights on a career in medical genetics, she joined the newly established Genetic Counseling Organization. Looking towards continuing her education, she provided counseling services for women and children at the Help Pregnancy Crisis Aid.

Activities/Awards: Throughout her student career at Grand Valley, Ashlyn was awarded a number of honors. She represented Grand Valley as the only undergraduate attendee at the Society of Forensic Toxicologists Annual Conference. She was awarded the first ever Jonathan and Marcia White Honors College Scholarship through the National Security honors sequence funded by one of her mentors, Dr. Jon White. She was awarded the "I Am Grand Valley" award for outstanding leadership and school service. In her final year, she was awarded the Grand Finish scholarship and the GV Award for Excellence.

Internship/Practicum experience: A dedicated advocate of public service and health, Ashlyn aided the Michigan State Police in state statistical research as an intern for the Forensic Laboratory Division in Lansing. She assisted with fingerprint and trace evidence divisions, as well as documented criminal fingerprints for the Automated Fingerprint Identification System, aiding the Federal Bureau of Investigation in their forensic research conducted with Michigan State University.

Plans after graduation: Ashlyn will be attending graduate school for a Masters of Science degree in Genetic Counseling. She aims to work in preimplantation genetics, but still has two years and rotations to decide! She plans to pursue her PhD in Human Genetics or education to someday return to academia as a professor. She wants to thank her mom, dad, and sister for their love and support as she looks forward to the next step in her education.

Jaclyn Ermoyan, Advertising and Public Relations



Senior Project title: *Design Thinking Toolkit: Design an experience that supports your mission or major*

Summary of senior project: Jaclyn worked with fellow senior Jonathan Cook to create a Design Thinking Toolkit to help implement Design Thinking methodology in the university and allow early exposure to students; while ensuring the students benefited from the activity. Jaclyn and Jonathan worked with over 200 freshman students to determine what worked best in creating an activity that encouraged students to empathize, share, and practice Design Thinking, as well as derive new ideas. In this immersion, students generated a list of experiences that contributed to a mission in their lives, rather than being limited by a major. To do this, students challenged their thinking and developed radical solutions that would become pathways towards their desired futures.

Leadership Activities: During her time at GVSU, Jaclyn has served as the CEO of GrandPR (a student-run public relations firm), on the executive board of the Grand Valley Public Relations Student Society of America, and co-created two student organizations; TEDxGVSU and Humans of Grand Valley. Jaclyn was also able to participate in the Cook Leadership Academy to learn more about leadership styles and develop her own skills.

Study Abroad experience: Jaclyn spent a month in Nicaragua after her honors freshman sequence, Social Product Innovation. Her professor, Dr. Paul Lane, led the program and introduced her to the Applied Global Innovation Initiative, where she participated in community projects and facilitated an innovation workshop.

Internship/Practicum experience: Jaclyn has worked in GVSU University Communications, where she helped maintain and generate content for all official Grand Valley social media platforms. She also served as the clerical assistant to the executive secretary for University Development and as the marketing assistant for the GVSU Career Center.

Lucas Javier Escalada, Multimedia Journalism; Advertising and Public Relations



Senior Project Title: The American Dream: A project to provide Latin American Students with a personal resource.

Summary: During my early years at Grand Valley, I often found myself alone, with no clue as to what I should do next: While the university provides students with endless resources, they are often too difficult to sort through in the middle of a nighttime panic attack. Or, in the middle of a Saturday, when a student hears from their roommate that they must pick their classes on Monday. This is the hole I hope to fill with my Honors Senior Project: A small, portable and accessible resource that has answers to the questions the university never thinks to answer.

Leadership Activities: Lucas was a Lead Writing Consultant at the Fred Meijer Center for Writing and Michigan Authors. Here, he helped interview, train, and hire new consultants while also mentoring returning consultants.

Study Abroad Experience: Lucas was born and raised in Buenos Aires, Argentina.

Work Experience: Lucas was a writer at the Grand Valley Lanthorn for a year. He has worked at the Grand Valley Writing Center for the last two years, helping students from all disciplines better their writing skills. Over the last year, he worked at University Communications, helping further Grand Valley's mission through stories on GV Now and The Forum.

Greatest Accomplishment: Falling in love with the university, the staff, the faculty, and, most importantly, the student body. Without them, I would not have developed as much as I have.

Plans after graduation: Lucas plans to pursue his passion in writing and communications. Whether he becomes a journalist in the frontlines of the "post-truth" era or a public relations professional for a corporation, he plans to continue hearing and telling new stories.

Hannah Fernando, Liberal Studies in Sustainable Food Systems, Minor in Environmental Studies



Senior Project title: *Why Partner? Connecting Michigan's Sustainability Efforts*

Summary of senior project: I worked with former Mayor George Heartwell and the Office of Sustainability Practices to assist Traverse City, Michigan in the collaborative development of a Community Sustainability Partnership or CSP.

Leadership Activities: I was a three-year fellow with Cook Leadership Academy. Led a project-based research team on using Design Thinking to Transform the Holland GVSU campus. I served as co-chair on the Mayor's Millennial Advisory Board.

Study Abroad Experience: Participated in a Costa Rican research-based study abroad program learning about community development and sustainable agriculture systems in tropical ecosystems.

Research/Practicum experience: Presented with Mayor Heartwell at the State of the City Address as a freshman in 2014. Presented with a GVSU team at the 2015 Food Justice Conference at Michigan State University on developing

Pedagogies to Address Local Food Injustice. Co Authored and published a paper for the *Sustainability: Science, Practice, and Policy* journal. Co-presented at the MSU Integrated Network of Social Sustainability conference on the "Wicked problems of Sustainability" with Dr. Danielle Lake. I also presented at the 2017 Teach In on *Using New Power Systems to Advocate for a Campus Dedicated to Social Justice*.

Internship/Practicum experience: Interned at The City of Grand Rapids as a member of the Transformation Research Analysis Team in the department of Urban Planning. I worked as a Research Assistant to the GVSU Division of Inclusion and Equity. Took a gap year in Traverse City, Michigan serving as the Farm to School Program Coordinator at the Traverse Bay Area Intermediate School District.

Greatest accomplishment while at Grand Valley: Staying faithful to her Heavenly Father and glorifying Him in all she has done

Plans after graduation: Staying faithful to her Heavenly Father and glorifying Him in all she has done.

Erica Fischer, Biology



Senior Project title: "From Aristotle to *Wunderkammer*: The Development of Entomology and Insect Collections."

Summary of senior project: I traced how the study of insects contributed to the development of modern biological classification systems, reflects the professionalization of biological sciences, and has influenced the development of museum collections.

Research and presentations: In addition to my senior project, I was a co-author of "Invasive epigeic earthworms reduce salamander populations in mesic lowland forests of a Michigan ravine ecosystem," which was presented as a poster at the North American Congress for Conservation Biology.

Leadership Activities: I've been volunteering in the GVSU Herbarium for the last three semesters. This semester I served as the secretary of Hillel@GVSU.

Internship/Practicum experience: While at Grand Valley, I worked as an intern in the Collections Department at the Grand Rapids Public Museum.

Greatest accomplishment while at Grand Valley: Managing to reorder the insect collection, update species names, and add information on individual specimens to the museum database was probably my greatest accomplishment during my time at Grand Valley.

Plans after graduation: I intend to go to graduate school in order to pursue a PhD in Entomology and a certificate in Museum Studies.

Claire Fisher, Multimedia Journalism



Senior Project title: Humans of Grand Valley

Summary of senior project: For my senior project, I worked to make Humans of Grand Valley more diverse in both the people we interview and the perspectives and stories they share. In the current political climate, I believe it's important to share our opinions, beliefs, and experiences. By helping to make the project tell more meaningful stories, we can use Humans of Grand Valley to build a stronger and more empathetic community at Grand Valley. I also did some research and writing about how Humans of Grand Valley fits into the field of journalism.

Activities/Awards: During my time at Grand Valley, I had the opportunity to work as a writer and as the campus manager at *The Black Sheep*. I was also able to serve as the arts & entertainment editor at the *Lanthorn* for a semester and now write as a columnist there. I was a member of the Grand Valley English Society and wrote for the publication *InWriting*. This year I joined the Humans of Grand Valley team and am so glad that I've been able to be a part of such a worthwhile project. I was also lucky enough to have the opportunity to work at University Libraries and help to develop and design the publication *Off the Shelf*. I also worked on the School of Communications blog and their publication *Expressions*. I was also received the Excellence in a Discipline award from the multimedia journalism faculty.

Plans after graduation: After graduation I will be taking some time off to travel to Israel on Birthright. I will spend a final summer working at Wooden Acres Camp where I have been working for the last six summers, while I work on searching for a job.

Leah Fishwick, Writing



Senior Project title: Caught Unawares

Summary of senior project: A 40-page novella about a young man living in the midst of an emotional pandemic—a world where caring can kill. In his desperate attempt to survive, to keep this illness at arm's length, he pushes away everyone who can save him from it. But when the death of his mother leaves his kid brother to him, it isn't so easy to distance himself.

Activities/Awards: Second and third place in the "Original Cartoon Editorial" category for the Michigan Press Association Awards in 2016.

Internship/Practicum experience: Writer and Communications Design Intern at Broox:Design, 2016

Greatest accomplishment while at Grand Valley: Surviving 20 credits in my last semester, and writing something worth reading.

Plans after graduation: Write my first complete novel.

Glenn Fitkin, Biomedical Sciences, Minors in General Business & Chemistry



Summary of senior project: My senior project revolved around the dissection and preservation of a heart with a quadruple coronary artery bypass; I spent months doing a very careful and complete dissection of the heart and followed up the dissection with preservation through plastination. The heart will be used by the biomedical sciences department as a teaching material for the foreseeable future.

Research and presentations: In my final year here at GVSU, I completed a large research project and presentation

concerning mechanisms and emerging treatments for tendinopathy (AKA tendonitis).

Leadership Activities: I have been heavily involved with outdoor recreation at GVSU; I have worked for the outdoor recreation department at the climbing center and bike shop for three years. I have been an officer of Vertical Earth, the university climbing club, for two years and I served as vice president this past year. I have been lucky enough to be a student mentor for the Honors College for three years in a row. I have worked as a building supervisor at the fieldhouse for two years, overseeing the building and its staff.

Activities/Awards: I was lucky enough to receive GVSU's "I am GV" award, the "Rec Star" Employee of the Month award, Climbing Center Employee of the Year, and I have been recently named as a Biomedical Sciences Graduate of Distinction.

Study Abroad experience: I studied abroad in Nicaragua for three weeks following my freshman year with the professor of my freshman sequence through honors, Dr. Paul Lane.

Greatest accomplishment while at Grand Valley: I've thoroughly enjoyed my time at GVSU and I can't begin to express how much experiences here have benefitted my development into the person I am as a graduate. My greatest accomplishment here has included managing a heavy schedule and maintaining heavy involvement and respectable grades for four years.

Plans after graduation: Post-graduation, my plan is to take about a year off of school before attending Physical Therapy School at an undetermined location. I hope to stay in western Michigan for the foreseeable future.

Meghan Forest, Anthropology & History



Senior Project title: "Dancing Skeletons: European Material Culture in the Wake of the Black Death"

Summary of senior project: I worked with Hillery York, of the Smithsonian National Museum of American History (NMAH), to create a museum exhibit plan digging into material culture in Europe following the 1347 outbreak of Bubonic Plague. I started by researching how art and artifacts changed in response to the strategy, developed an exhibit script, found and acquisition tracked artifacts from global museum, wrote artifact label texts, compiled a visual representation of my exhibit, and wrote a blog post for NMAH's internet presence.

Research and presentations: I have presented at four professional Writing Center conferences, including the National Conference on Peer Tutoring in Writing in Tacoma, WA. I have also participated in two years of GVSU Student Scholar's Day.

Leadership Activities: I am a lead consultant at the Fredrik Meijer Center for Writers and Michigan Authors, meaning I hire and train new consultants as well as run ongoing mentorship and professional development opportunities throughout the semester.

Activities/Awards: This past semester, I was nominated for the Fredrik Meijer Outstanding Senior Award, the Outstanding Major Award in the History Department, and the Academic Excellence Award in the Anthropology Department. I have enjoyed eight consecutive semesters on the Dean's List. Additionally, I have received the I Am Grand Valley Award three times, and received recognition in the Honors College Freshman Composition Essay Competition, the Oldenburg Essay Competition, and the Shakespeare Student Scholar's Essay Competition. I belong to Phi Kappa Phi (a general honor society), Alpha Lambda (the anthropological honor society), and Phi Alpha Theta (the historical honor society).

Internship/Practicum experience: I worked as a curatorial and exhibit design intern at Blinds.com in Houston, TX. I also spent two semesters at the Gerald R. Ford Presidential museum in downtown Grand Rapids, and two semesters at the GVSU Art Gallery.

Greatest accomplishment while at Grand Valley: Eight consecutive semesters with a 4.0 GPA. I couldn't ever do this in high school, so accomplishing it with a higher degree of academic rigor is simply incredible to me, even after four years.

Plans after graduation: I will be pursuing a Master of Science in Visual, Material, and Museum Anthropology from Oxford University.

Ben Freeman, Mechanical Engineering



Senior Project title: Thermal Manufacturing Test Bench

Summary of senior project: The goal of my senior project is to improve the design and control of high-temperature heater tooling made by Koops Inc. for automated manufacturing. This involves designing and creating the test equipment, developing experimental trials, and synthesizing the results. As with all engineering senior projects, it is slated for completion by late summer.

Research and presentations: One of the more original projects I've participated in at GVSU consisted of designing and building a lift sled so that children without use of their legs could enjoy standard playground slides.

Leadership Activities: I started and led a weekly student Bible study at Grand Valley for over two years.

years. I am also teaching 3rd-5th grade Sunday School through my local church.

Activities/Awards: Academic Excellence Award in Mechanical Engineering. 1st Place in Wooden Shoe Regatta Style Competition

Internship/Practicum experience: I spent three semesters working at Koops Inc. through the Co-Op program. While there, I rotated through three engineering departments designing, programming, and debugging automated equipment. I was given enough experience and training that the customers I worked with never knew I was an intern unless they were told.

Greatest accomplishment while at Grand Valley: Being named the most outstanding undergraduate student in Mechanical Engineering by the faculty.

Plans after graduation: I have signed on with Koops as a full-time designer, and I intend to begin taking classes part-time through The Expositors Seminary this fall. Thus equipped, I intend to serve and glorify my Lord and Savior Jesus Christ in whatever capacity I am able.

Ella Fritzemeier, Finance & Economics, Minor in Spanish



Senior Project title: Design Brief: Detroit Center

Summary of senior project: My senior project was using design thinking to explore various possibilities to further develop the mission and use of the Detroit Center, an extension of Grand Valley.

Research and presentations: Teach-In Presenter for two years: "Intersectionality" (2016), "Making Difficult Decisions" (2017) and "Affirming Inclusion at GVSU" (2017).

Leadership Activities: Resident Assistant for three years, President of Student Senate for one year (Member for four years), fellow of Cook Leadership Academy, Finance Tutor, member of Omicron Delta Kappa, Phi Kappa Phi, and Beta Gamma Sigma.

Activities/Awards: Outstanding Student in Finance, Venderbush Leadership Award Recipient, and Niemeyer Award Recipient.

Study Abroad experience: Universidad de Bío Bío Chillán, Chile Summer 2015

Internship/Practicum experience: Intern at Whirlpool Corporation Summer 2016

Greatest accomplishment while at Grand Valley: Receiving the Niemeyer Award. It has been a goal of mine since I met Danielle Meirow, a former recipient and member of the Honors College, who has been an inspiration for me throughout my time at Grand Valley. It is a culmination of the work I've put into my academics and extra-curricular activities and I am extremely honored to be receiving it.

Plans after graduation: Working at Whirlpool Corporation in their Finance Development Program.

Virgilia Gaska, Biology, Pre-Dental Emphasis



Senior Project title: The Path to Dentistry

Summary of senior project: My senior project was the creation of a website called “The Path to Dentistry” which focuses on the undergraduate path to dental school and includes resources and information to assist students interested in the field.

Research and presentations: Student Scholars Day

Leadership Activities: Pre-Dental Club E-board

Activities/Awards: I've been a part of Sigma Kappa sorority for the last 4 years and have been involved with our philanthropy, the Alzheimer's Association, as well as many volunteer activities.

Study Abroad experience: Dental Shadowing in Lithuania

Internship/Practicum experience: Intern at Whirlpool Corporation Summer 2016

Plans after graduation: I will be attending Indiana University School of Dentistry to become a Doctor of Dental Surgery (DDS).

Taylor Gibson, Nursing



Senior Project title: *Sleep Deprivation in the Hospitalized Patient*

Summary of senior project: *Sleep Deprivation in the Hospitalized Patient* is a research paper describing the current knowledge of normal sleep, tools used to measure qualities of sleep, the causes of sleep disturbances in the hospital, the physical and psychological effects of sleep deprivation, and nursing interventions that combat the problem. A discussion on how this information will affect my personal nursing practice is included at the end.

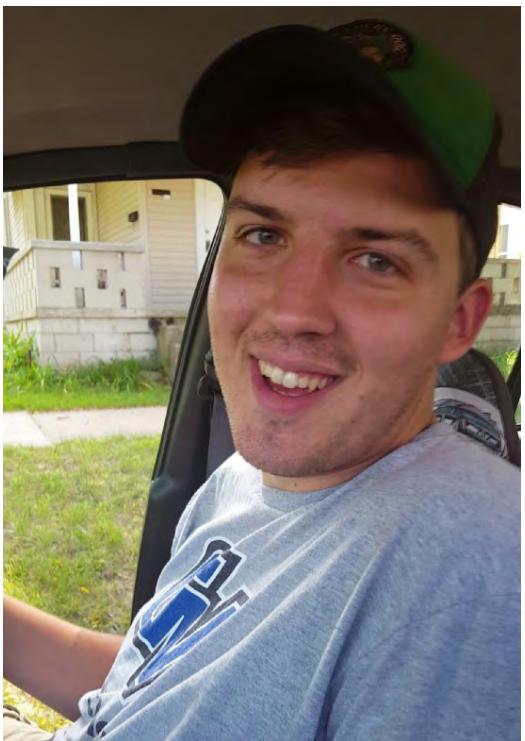
Activities/Awards: I was a member of the Grand Valley Waterski and Wakeboard Club Team all four years. I was ranked 40th in the nation in slalom skiing both my freshman and sophomore years.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley was completing my leadership rotation. Working with a nurse

full time for 6 weeks proved to me that I had chosen the perfect career.

Plans after graduation: I will be working as a Registered Nurse in the Pediatric ICU at Helen DeVos Children's Hospital

Josh Gill, Accounting



Senior Project Title: An Examination of the Effects of Mandatory Audit Rotation

Summary: I explored the Sarbanes-Oxley Act regulations pertaining to the requirement of mandatory audit partner rotation as a measure to improve auditor independence and audit quality. I compiled a literature review on the relevant research that details the outcomes of these requirements in order to determine their effectiveness in achieving their intended goals.

Activities/Awards: Member of Beta Alpha Psi, Intramural basketball referee, volunteer at Comprenew and Kids Food Basket.

Internship: Accounting Intern at Plante Moran.

Greatest Accomplishment: Grand Valley has allowed me to gain invaluable professional experience while growing personally and forming lifelong friendships.

Plans after graduation: I will begin a full-time position as an Assurance Associate at Plante Moran and work towards becoming a licensed CPA.

Zachary Gill, Computer Science



Senior Project Title: RevolutionVR

Summary: RevolutionVR is an app for Google VR compatible smartphones that allows users to experience the French Revolution. Starting from the calling of the Estates-General, users will make choices across scenes to try to survive the Revolution. Do you support the Jacobins, the Clergy, the Feuillants, or are you merely a member of the Crowd? By the end of the app, users should have a slightly better feel for the revolution, making this app a supplement to classroom learning.

Research: "Interpreting the French Revolution via the Video Game *Assassin's Creed Unity*". Over the Spring/Summer 2015 semester, Zack did research on using *Assassin's Creed Unity* in higher education. Not only did this mean playing the game, but reading historiographical accounts to see what the game got right, and what it did wrong. The resulting paper was presented at the Southeastern American Society for Eighteenth Century Scholars conference in 2016, and the game was implemented in French Capstone and

Honors European Civilization.

Leadership Activities: President of the Grand Valley Fencing Club since 2014

Activities/Awards: Computer Science Award of Excellence, 2016 - School of Computing and I.S., Member of Phi Kappa Phi and Upsilon Pi Epsilon

Internship: Zack has spent 3 Summers and 1 Fall interning at YetiCGI, a game development company in Grand Rapids, with a focus on mobile and educational games. Some previous clients include Square Panda, Disney, and even GVSU.

Greatest Accomplishment: Encouraging the use of video games in the classroom. Not only were games used in European Civilization and French Capstone, but a game lab was set up within the Language Resource Center, with Zack being the main consultant at the lab.

Plans after graduation: Zack plans on working in the video game industry, starting at YetiCGI before potentially switching to major game companies, such as Blizzard, Bioware, Bethesda, or Ubisoft.

Katie Gipe, Elementary Education & English, Minor in Applied Linguistics



Senior Project title: Challenging Heights Project

Summary of senior project: While studying abroad in Ghana, I worked at a rehabilitation shelter for children who had been rescued from labor trafficking. I assisted in the classrooms, helping children learn English and working with the teachers to see how they conducted their English instruction. With the teachers' input, I then constructed an English curriculum guide that offers research-based instructional strategies and activities to enrich the teachers' English instruction and the children's language development.

Research and presentations: I presented research on bridging linguistic distances in a multilingual classroom for my English capstone.

Leadership Activities: I was vice president of philanthropy and service for the Panhellenic Executive Council and a representative for Circle of Sisterhood. I also tutored refugee children and adolescents with the WORD ESL program, the Literacy Center of West Michigan and at Palmer Elementary.

Activities/Awards: I have been a part of the Cook Leadership Academy, Sigma Kappa Sorority, the Phi Kappa Phi Honor Society and Teachers of Tomorrow. I have also received the distinguished performance in linguistics award from the linguistics department and multiple 'I am Grand Valley' leadership awards.

Study Abroad experience: I studied abroad in Ghana, West Africa for seven weeks this past summer. I spent the first week studying at the University of Ghana and the next six weeks working with Challenging Heights, a non-profit, to help educate and rehabilitate children who had been rescued from labor trafficking.

Internship/Practicum experience: I was a teacher assistant at Palmer Elementary last semester in a 4th/5th split classroom and just finished up student teaching at CA Frost Environmental Science Academy in a 1st grade classroom this semester.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley has been working with people from different backgrounds, both in Grand Rapids and in Ghana, as it has taught me an immense amount.

Plans after graduation: I have accepted a Fulbright scholarship to be an English Teaching Assistant in La Rioja, Spain next year. After completing the scholarship, I plan to continue teaching English abroad to non-native speakers.

Jessie Gortsema, Psychology & Allied Health with an emphasis in Speech Language Pathology



Senior Project title: Personality Traits Relating to Social Communication Severity

Summary of senior project: This study assesses the level of social communication impairment in adults with autism spectrum disorder, and compares that to individual personality traits within the Five Factor Model (FFM). The level of each trait was analyzed to search for trends or correlations between specific personality traits and severity of social communication impairment.

Leadership Activities: Academic Officer on the executive board for Delta Zeta, transitions leader

Activities/Awards: Delta Zeta, NSSLHA

Plans after graduation: Attend the speech language pathology graduate program at Florida

State University and train under the ASSET (Autism Spectrum Specialized Education and Training) grant

Bailey Groendyke, Physics & Music (Percussion)



Senior Project title: The Acoustics of the Sherman Van Solkema Recital Hall at Grand Valley

Summary of senior project: This study focused on measuring the acoustic performance of the Sherman Van Solkema Recital Hall (SVS) at GVSU. Measurements were taken before water damage which occurred in Winter 2015 and after restoration of the hall in Summer 2016. Reverberation time (RT) was measured by filling SVS with sound (pink noise bursts) and measuring the decay as per ASTM E2235 protocol. The clarity of the hall was analyzed based on RT measurements. A digital SketchUp model of SVS was created from CAD drawings and physical measurements; the model was used for acoustic simulations conducted in the analytic software ODEON to simulate RT. Data from physical measurements and simulations confirmed a significant change RT in SVS. Lower frequencies and some mid-tone frequencies were overly prominent (between 1.3 and 2.5 seconds) in the room after renovations. More measurement and analysis of the room is recommended, as it is desirable to achieve an RT between 1.0 and 1.2 seconds for chamber music halls.

Research and presentations: The Acoustics of the Louis Armstrong Theatre at Grand Valley. Studying Vibrating Objects with Electronic Speckle Pattern Interferometry (ESPI)

Leadership Activities: Vice President of the Women in STEM Club, Secretary of the Physics Club, Physics Tutor

Activities/Awards: Student Summer Scholar 2015, New Music Ensemble, Symphonic Wind Ensemble, Symphony Orchestra, Visitor Information Personnel, Student Ambassador, Backpacking Club, Marching Band, Clay Club

Internship/Practicum experience: Acoustics by Design (Summer 2016), Steelcase - Office of Innovation Management (Winter 2017-Summer 2017)

Greatest accomplishment while at Grand Valley: Completing my research on Grand Valley's Louis Armstrong Theater was a resounding moment in my career here. For many years, students and faculty members were displeased with the poor acoustics of the hall, and I was able to bring those concerns to light. This process helped me learn about measurement techniques as well as acoustic principles that led to greater opportunities I wouldn't have had otherwise.

Plans after graduation: I will be interning at Steelcase throughout the summer, working in acoustics research. Later, I would like to go to graduate school to obtain a masters in Physics or Acoustics.

Ethan Haan, Political Science/History



Senior Project title: A History of the Reagan Movement

Summary of senior project: An in-depth analysis of the political movement of Ronald Reagan in the 1980s and early 1990s, covers a chronological order of events with expert analysis and takeaways of speeches from Reagan and his political allies.

Other Research: My senior thesis for my history major was an historiographical essay on the causes of the Thirty Years War (1618-1648) and whether the war was caused by political reasons, religious reasons, or both.

Internship Experience: Served as an intern for the Michigan Republican Party during the 2014 midterm elections running a phone bank and canvassing neighborhoods. I am currently serving as an intern for the Village of Sparta assisting in running their office and assisting the Village Manager with challenges confronting the community.

Greatest accomplishment while at Grand Valley: I really enjoyed writing my senior thesis for my history major and hope to get it published!

Plans after graduation: I hope to work for a municipal government.

Mitchell James Haynes, Biochemistry



Senior Project title: Exploring the importance of carboxylated lysines in class D β -lactamases.

Summary of senior project: Conducted research on an antibiotic resistance protein, results showed the importance of a specific atom through x-ray crystallography.

Leadership Activities: National Philanthropy chair Sigma Pi fraternity Theta Rho chapter

Activities/Awards: Dean's list

Greatest accomplishment while at Grand Valley: Getting accepted into Pharmacy school at UNC

Plans after graduation: Attend pharmacy school at UNC

Megan Hollowell, Interdisciplinary Engineering



Summary of senior project: My senior project is designing and building an automated rover to clean out semi-truck trailers. The project is sponsored by HydroChem and lasts for two semesters with six other team members.

Leadership Activities: While a student, I have participated in the Society of Women Engineers.

Internship/Practicum experience: I worked at Belcan Engineering as a co-op student every other semester starting at the end of my sophomore year.

Activities/Awards: From my work at Belcan, I was nominated by engineering faculty and my employer for the American Society of Engineering Education / Cooperative Education Division Co-op Student of the Year award.

Plans after graduation: After I graduate, I plan to work as an engineer in Software and/or Biomedical fields.

Allison Hoppe, Biomedical Science



Senior Project title: Fungal Diseases and Medical Culture in Ghana

Summary of senior project: I received credit for my Senior Project while studying abroad in Ghana. There I paid attention to the different diseases I saw in the hospital, specifically fungal diseases. There was a correlation between the incident of fungal diseases and the lack of proper health education in the most rural areas of Ghana, which is what I studied. I looked for medical need in the country where I could make an impact and saw that at one of the orphanages I volunteered at there was no bed nor cot for the sick children to stay; they only had a wooden bench to lay on. Coming back to America, I exchanged my volunteer services to help put on a 5K that was already in process to raise money for this organization in return for a set

amount of the money going towards purchasing them a hospital bed. I was successful in this goal.

Research and presentations: I did Biomedical Research in Dr. Thomas's Lab studying *Candida albicans*. I also spent a summer as a Modified Student Summer Scholar through the Office of Undergraduate Research and Scholarship with this research.

Leadership Activities: I am a member of Gamma Phi Beta where I held a term as our Standards Chairwoman. I also was an undergraduate mentor to a high school student interested in perusing medicine through Michigan State University's College of Human Medicine Pipeline Program. Additionally, I served as a Transitions leader at GVSU freshman orientation.

Activities/Awards: I regularly volunteered at Helen Devos Children's Hospital throughout my undergraduate career and was voted "Most likely to End World Hunger" two years in a row by my sorority.

Study Abroad experience: I spent a summer abroad in Ghana, Africa through the honors college trip and did rotations through the Ghana Health Service. I also took a trip to Panama one summer where I worked in underserved health clinics. I gained credit for this trip counting it towards my Intercultural Training Certificate.

Internship/Practicum experience: While in college I have worked as a Certified Nurse's Assistant at a nursing home in Allendale and am currently a Medical Scribe in the Emergency Departments at Spectrum Health Butterworth, Blodgett, Zeeland, and my home base of the Helen Devos campus. I additionally held a Rural Premedical Internship through Michigan State University's College of Human Medicine where I spent a summer shadowing rural physicians in various specialties.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley was the mindset I acquired to fearlessly pursue my passion. So many doors were offered and opened for me at Grand Valley and through taking advantage of those opportunities I gained a confidence in myself that I do have the power to impact the world, with the help of my liberal education from Grand Valley State University.

Plans after graduation: I plan to attend medical school and become a family practice physician in an underserved area domestically or abroad.

Lauren Hunter, Electrical Engineering, Minor in Computer Engineering



Summary of senior project: The senior project I was assigned to was sponsored by a local Grand Rapids company, E3 Compliance. My senior design team was tasked with designing, building, and automating the movement of two separate antenna fixtures for use in pre-compliance radiated emissions testing (testing electronic devices to make sure they won't interfere with other electronics or human health). One fixture will stay at a set height and only flip the measurement antenna horizontally or vertically. The other fixture is a boresight fixture, which will move the measurement antenna up and down as well as flipping its polarization (horizontal or vertical) while keeping the antenna constantly pointed at a specific point. Since these fixtures will be used for electromagnetic compatibility testing, special care needed to be made to ensure the measurements would not be affected by our fixtures. The team could not use any wires or metal throughout the entire system. The fixtures were made to be easily maneuverable by one person, and are meant to operate inside an enclosed chamber. Therefore, the team had to

create a way to communicate data and commands back and forth from the fixtures and the controlling computer. The project lasted for two semesters, and the overall budget of the project was \$7,500.

Leadership Activities: While I was at Grand Valley, I was involved in many organizations on campus. I was the treasurer of the Latin Dance Group as well as a member of Anchor for my first years. I served as an executive board member in Grand Valley's Society of Women Engineers section for three years. I also served as the Vice-Chair of Electrical Engineering for Grand Valley's Institute of Electrical and Electronics Engineers for three years. I was a member of the Honor's Mentor Council for a little over two years, and an Honor's Mentor for three years. I received the 'I am Grand Valley' Award twice for my work with the Mentor Council.

Internship/Practicum experience: Starting in the summer of my sophomore year, I worked year-round while going to school. I worked as an Electrical Engineering Co-op at two different local engineering companies. I worked at Innotec Group in Zeeland from April 2015-September 2016 and at Gentex Corporation in Zeeland from September 2016 to present.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at GV was being able to take on a minor and so many activities and responsibilities while still graduating with honors engineering in four years. It was an extreme test of my time management skills and willpower, as well as my need for sleep. I can't remember a time when I didn't have homework/projects/studying to work on, but I couldn't be happier with my decisions since they have prepared me well for my career.

Plans after graduation: After I graduate, I plan to work in West Michigan as an Electrical Design Engineer with a focus on hardware design and electromagnetic compatibility.

Jared Hutchens, Communications



Title of Senior Project: Reign

Summary of senior project: *Reign* is a work of fiction that explores themes of power, leadership, friendship, and loyalty. Based loosely on the life of King Saul, the project focused on developing specific sections and concepts of the larger story.

Leadership Activities: Campus Ministry Life Group and Prayer Team leader.

Activities/Awards: I am Grand Valley Award, Dean's List, Photograph displayed in the Fishladder Student Scholars Showcase.

Study Abroad experience: Internship in El Salvador.

Internship/Practicum experience: Operation Mobilization Communications Intern, Campus Ministry Office and Prayer Team intern

Greatest accomplishment while at Grand Valley: Finding what I love and pursuing it wholeheartedly.

Plans after graduation: I will get married in May, and will use my experiences and skills to live my life in servitude to God.

Grace Irwin, Spanish



Outstanding Senior Award

Senior Project title: Roosevelt Park Ministries ESL Unit Plan

Summary of senior project: I developed an English as a second language (ESL) curriculum for the adult Spanish-speaking students at the non-profit organization Roosevelt Park Ministries in Grand Rapids.

Research and presentations: Student Scholars Day, 2014.

Study Abroad experience: I studied abroad in Cusco, Peru, during the Fall semester of 2015.

Activities/Awards: English Department Linguistics Award in 2015 and 2016, Finalist for the Frederik Meijer Honors College

Internship/Practicum experience: I taught ESL for three years at Roosevelt Park Ministries.

Greatest accomplishment while at Grand Valley: Maintaining my 4.0 GPA throughout all four years.

Plans after graduation: I am returning to Grand Valley to get my masters in Applied Linguistics, after which I hope to teach ESL at the university level.

Danielle Kay, B.A. in International Relations Minors in Writing and Environmental Studies, Certificate in Sustainable Food Systems



Senior Project title: An Interdisciplinary Exploration of Food Insecurity

Summary of senior project: There are three parts to my project. I wrote a research paper on international food insecurity, hosted a documentary screening and discussion about food insecurity in the United States, and interviewed Grand Valley students about their experiences with food insecurity.

Leadership Activities: Since joining my service fraternity Alpha Phi Omega, I have held the positions of Vice President of Service, Vice President of Membership, Fundraising Chair, and Conference Chair. This past year I was also a Site Leader for Alternative Breaks, and led the Water Restoration trip down in Murphy, North Carolina.

Study Abroad experience: After my freshman year I traveled to New Zealand on the Ecovillages study abroad program. While there, we studied and contrasted how urban and rural communities interact with their surrounding environments.

Internship/Practicum experience: In the summer of 2016 I interned with the Michigan League of Conservation Voters as their Government Affairs intern. The internship provided me with hands-on experience working with Michigan environmental policies.

Greatest accomplishment while at Grand Valley: This past year I planned a sectional conference for my fraternity. It was a very complicated and stressful experience, but it was successful in the end!

Plans after graduation: I will be interning with the Michigan Environmental Council, helping them with their newly created Sustainable Agriculture Program. After this internship, I hope to move to Washington D.C. to continue fighting for more effective environmental policies.

Brianna King, Statistics



Senior Project title: Dimension Reduction Techniques in Survival Analysis

Summary of senior project: In statistics, problems can occur if you have a large number of variables to analyze. Such is the case when you are dealing with genetic data. We have a large number of genes that could help determine our probability of developing a certain type of disease, such as cancer. There is something in statistics called dimension reduction that can make analyzing the large number of genes we have possible. My mentor, Dan Frobish, and I compared several types of dimension reduction techniques on a simulated data set we created in order to determine which technique was the most accurate and precise at determining someone's chances of developing a certain disease based on their genetic profile.

Research and presentations: I participated in an REU doing biostatistics research and presented at MathFest.

Activities/Awards: I was a member of the cross country and track team for four years. I participated in Phi Sigma Pi, an

honors society, for three years and Mu Sigma Rho, a statistics honors society, for one year. And I received Sigma EM Outstanding Presentation Award at MathFest. I also received Academic Excellence Award in Statistics from Grand Valley.

Study Abroad experience: I studied abroad in Costa Rica for six weeks.

Internship/Practicum experience: I will be spending this summer at Pine Rest completing my internship in their activity therapy department.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley was finding an opportunity to do research that utilized my classroom knowledge and let me be able to present it to both at MathFest and at Grand Valley.

Plans after graduation: I will be attending the University of Michigan for an MS in Biostatistics.

Lucas Kohlmeyer, Mathematics and Statistics



Senior Project title: Evaluating Catchers using Pitchers Performance

Summary of senior project: I worked with the baseball team running analytics to evaluate two of their catchers, using the pitching staff's statistics with each catcher behind the plate.

Activities/Awards: Outstanding Senior Award in the Mathematics Department

Internship/Practicum experience: Interned at Farmers Insurance

Greatest accomplishment while at Grand Valley:
My biggest accomplishment is graduating in 3 years with 2 majors.

Plans after graduation: I plan to work at Farmer's Insurance before attempting to get into sports statistics.

Emily Konen, Therapeutic Recreation



Senior Project title: Health Resources in Study Abroad

Summary of senior project: A website and handout that explores the various accessibility and health care options for individuals who wish to study abroad. Research has been done on the top 15 countries that US students tend to visit for a study abroad length of two months or more, and was done in conjunction with the Gilman Program

Research and presentations: I completed research on the Enlightenment age regarding the debate of nature versus nurture in the psychology of individuals, and presented it at Student Scholars Day

and at MEHA. I presented my research and experience abroad at the Global Health Showcase in Fall 2016, and 2 presentations at SSD 2016.

Leadership Activities: I am an RA in the Freshman Living Halls, and was an RA in an Honors Building last year. I am a fellow in the Cook Leadership Academy, and was an E-Board member on ANCHOR my freshman year. This year, I led community service activities. I am a choreographer/dance teacher for GVSU's Dance Troupe!

Activities/Awards: I am a Gilman Scholar and a Murray Scholar! I was also awarded the President's Volunteer Service Award, and participated on the rowing team, dance troupe, ATRA & TRSA (both professional organizations!).

Study Abroad experience: I spent this past summer of 2016 in Ireland for 11 weeks completing my fieldwork. I worked at Barretstown, a camp for kids with serious illnesses, & was able to travel throughout Ireland, England, and Edinburgh!

Internship/Practicum experience: I will be spending this summer at Pine Rest completing my internship in their activity therapy department.

Greatest accomplishment while at Grand Valley: Spending a summer abroad and being completely independent was my greatest accomplishment throughout my time at GVSU.

Plans after graduation: I plan to complete my internship and then work for a year, obtain my CTRS certification, and then return to graduate school to learn more about research!

Andrea Kress, Biology, Minors in Mathematics & Applied Statistics



Senior Project title: Comparative Study of Technologies for Monitoring of Over-Wintering Honeybees

Summary of senior project: This study (working with GVSU Profs. Anne Marie Fauvel and Jonathan Engelsma) entailed using infrared (IR) images, temperature, and relative humidity sensors to determine if these newly available technologies would be useful in improving beekeeping management techniques during the winter season.

Research and presentations: I completed an Independent Study working on bioinformatics of the sugar glider genome and presented preliminary results of my Senior Project at the Michigan Beekeepers Association Spring 2017 Conference.

Leadership Activities: For 4 years I have been a Mathematics Tutor at the GVSU Math Center.

Activities/Awards: Sustainability Championship Award 2017, Dean's List Fall '14, Winter '15, Fall '15, Winter '16, Fall '16

Internship/Practicum experience: I completed a summer-long laboratory internship at the VanAndel Research Institute with Michigan State University Professor Dr. Karen Racicot.

Greatest accomplishment while at Grand Valley: My greatest accomplishment is seeking out courses and experiences that will allow me to continue my education while pursuing my scientific passion.

Plans after graduation: Starting in August 2017, I will begin working toward my PhD in Ecology and Evolutionary Biology at Purdue University.

Abbie Krestakos, Hospitality and Tourism Management with an emphasis in Meeting and Event Planning



Senior Project title: Bison Conservation Effort

Summary of senior project: The project consisted of researching various conservation efforts that help reintroduce and grow the buffalo population in order to increase their population after near extinction. Tshirts were made that incorporated both the buffalo conservation and Grand Valley themes in order to raise money to support the conservation efforts through the American Prairie Reserve.

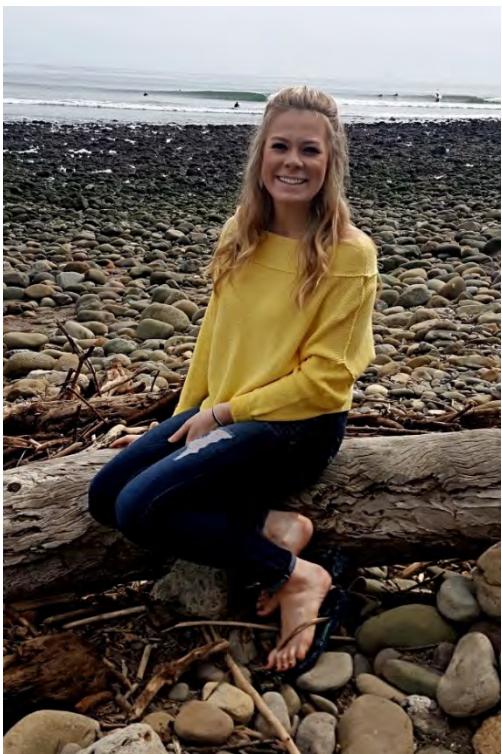
Activities/Awards: GV Laker Scholarship, Grand Finish Scholarship

Internship/Practicum experience: Completed 1,000 hours through internships in the hospitality industry in various companies and segments of the tourism world.

Greatest accomplishment while at Grand Valley: Completing both the honors curriculum and hospitality requirements within 3 years of being at Grand Valley while maintaining a job and extracurricular activities.

Plans after graduation: Live in the Grand Rapids area working as an event planner within the concert industry.

Lauren LaBaumbard, Political Science



Senior Project title: Environmental Approach: Organic Eating and Policy to Make Organic Food More Financially Accessible

Summary of senior project: The central focus of my project looked at the issues with non-organic and genetically modified food and how that consumption can have repercussions in the future. I looked at existing legislative policies in terms of this and wrote my own policy in regards to how I believed that legislation could be effectively changed. I looked at problematic issues such as cost, pesticides, availability, etc. and attempted to resolve those issues and bring awareness into my own policy. I then composed a brochure of the foods most important to consume organic, while doing it on a budget.

Leadership Activities: I served as President of my sorority, Delta Zeta, and also as Treasurer and Activities Chair. I was a mentor for the Honors College.

Activities/Awards: I am a member of Phi Kappa Phi, Pi Sigma Alpha, and National Collegiate Society of Scholars.

Study Abroad experience: I spent one month in Fort Kochi, India. While I was there I taught English in a school.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley was serving as President of my sorority and all of my experiences in India.

Plans after graduation: In the fall, I will attend Michigan State University's College of Law.

Gloria LaCourse, Accounting



Senior Project title: Family Owned Businesses: International Charitable Contributions & Tax Savings

Summary of senior project: My senior project was nearly 70 pages long and examined the tax structures of Malaysia, Australia, Thailand, Canada, and the Cayman Islands. I created models for family-owned businesses within these countries to follow in order to gain the greatest tax benefit while making charitable contributions. I had the honor of traveling to Rome in Winter of 2016 and presenting my project at a national research conference.

Activities/Awards: I have been given the Frederik Meijer Honors College Outstanding Senior Award, the Outstanding Undergraduate Student in the School of Accounting, and the Flexco Accounting Excellence Award. I have also been awarded the Graduate Enrichment Fellowship from The Ohio State University. This fellowship allows me to attend OSU next year and obtain my Master's of Accounting free of charge!

Study Abroad experience: I studied abroad in London during the summer of 2016, experiencing a vastly different culture and enjoying my first international travel. I had the absolute best time and plan on travelling much more in the future.

Internship/Practicum experience: I have participated in four public accounting internships, three with Plante Moran in Audit and Tax and one with Deloitte in International Tax. I have signed a full-time offer of employment with Plante Moran and plan to start my career there in January of 2019!

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley is finding my voice and passion. I entered Grand Valley terrified and scared of the unknown, but I am leaving with a newfound confidence and deep values that influence every aspect of my life.

Abbie Lanning, International Relations, Minor in History



Senior Project title: Effectiveness of U.S. Foreign Aid in Haiti

Summary of senior project: My Honors Senior Project looks at how effective U.S. foreign aid actually is in Haiti, noting some of the unintentional consequences of foreign aid and its failures. I address this question in regards to a non-profit organization, Haitian Interdenominational Shelter (H.I.S.) Home for Children.

Research and presentations: My sophomore year I did an independent study on Tibet and the Himalayan region. I researched the history of the political relationship between Tibet and China from 1900-1960.

Activities/Awards: I played viola in the Grand Valley Symphony Orchestra for two years. I am also a member of Phi Kappa Phi.

Study Abroad experience: The fall semester of my junior year I studied abroad in London at Kingston University. While I was there I studied international relations and British history.

Internship/Practicum experience: Over the summer of 2016, I completed a Theoretically Interesting Molecules Fellowship in Chemistry, sponsored by the National Science Foundation.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley was not getting attacked by a nesting Red-winged Blackbird when walking to work at the Development Office. Studying abroad and travelling around Europe was also up there. I had always wanted to visit London, and being able to live there for four months was amazing. While I was there I met a lot of great people from around the world and learned a lot about other cultures.

Plans after graduation: My plans after graduation include taking a year off before pursuing graduate school, spending time with my family, working, and traveling as much as possible. I hope to go to graduate school in London to study International Relations.

Erin G. Leach, Biomedical Sciences



Senior Project title: The Sensitization of Lanthanide Luminescence through Coordination of Carbomoylemethylphosphine Oxide Ligands: Effects of Modification to the Carbonyl Phenyl Ring

Summary of senior project: My project focused on enhancing the luminescent properties of lanthanides and actinides (rare, sometimes radioactive, earth metals). By designing, synthesizing, and testing organic molecules (ligands) to coordinate the metals, I could determine the functional groups that were most important in the decay process for purposes of improving intracellular imaging techniques. Some of our ligands bind well to gadolinium, a lanthanide used in MRI contrast agents. By improving the emission efficiency of this interaction, MRI's could be improved in imaging quality. Lanthanide based probes are also becoming more relevant in the field of cellular pathology for use in cancer treatments.

Research and presentations: I have learned about the professional practice of science from Dr. Shannon Biros and Dr. John Bender through four years of working on organic ligands for purposes of nuclear waste remediation and intracellular imaging advancement. I have presented my work a total of 8 times at GVSU, local conferences, and national expositions. Some of my research has also been published in *Acta Crystallographica*.

Leadership Activities: I have served on the executive boards of the Pre-Med Club and the American Red Cross Club. The Pre-Med club executive board was honored during my year of service with the Shelia Williams Outstanding Organization of the Year Award. I also enjoyed playing on Grand Valley's intramural sports teams and working as a science tutor at the SASC. In addition, I served on the student advisory committee for Dean Antczak.

Activities/Awards: I have recently received the Academic Excellence Award in Biomedical Sciences, along with the Undergraduate Research Scholar Award for Academic Excellence. I have been inducted in the National Society for Collegiate Scholars. I have been previously nominated by faculty for the Glenn A. Niemeyer Student Award, I am Grand Valley Leadership Award, and Student Life's Immediate Impact Award. Currently, I volunteer as a medical assistant at Oasis of Hope, a clinic for the uninsured of Grand Rapids, and I work for the chemistry department as an adjunct lab instructor and Spectrum Health as a pathology assistant.

Study Abroad experience: I participated in a medical mission trip to Belize during the summer of 2014 through International Service Learning. The trip solidified my decision to pursue a career in medicine and prompted me to get involved with the medically underserved of Grand Rapids.

Internship/Practicum experience: Over the summer of 2016, I completed a Theoretically Interesting Molecules Fellowship in Chemistry, sponsored by the National Science Foundation.

Greatest accomplishment while at Grand Valley: One of my greatest accomplishments while at Grand Valley was completing a philosophy minor with an emphasis in ethics along with a minor in chemistry.

Plans after graduation: I will be attending Michigan State University's College of Human Medicine (M.D.) in the fall of 2017.

Katelin Leahy, Psychology



Senior Project title: Beyond Concrete Walls, *a novella*

Summary of senior project: To take the place of a capstone for my writing minor, I decided to write a novella, which is a shorter version of a novel, to culminate all the knowledge and writing skills I have developed.

Research and presentations:

Gross, J., Leahy, K., Plotkowski, A. R., Mangat, T., Gonzales, J., Dzik, P. (In progress). In the melody of the reader's inner voice, Heteronyms are tricky: Prosody training can help.

Galen, L. W., Kurby, C., Dopheide, L., Guthrie, A., & **Leahy, K.** (2016). Religiosity is inversely related to trust in a controlled economic interaction. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.

Gross, J., **Leahy, K. E.**, Plotkowski, A. R., Rister, A., & Winegard, B. (2016). I read toMAYto, you read toMAHto, nobody reads **TOmaTO**: Marking stress explicitly in written English fosters the melody of the reader's inner voice. Presented at the annual meeting of the Association for Psychological Science, Chicago, IL.

Leahy, K. E., Mangat, T., Gonzales , J., Dzik, P., & Gross, J. (2016). I read toMAYto, you read toMAHto, nobody reads **TOmaTO**: Marking stress explicitly in written English fosters the melody of the reader's inner voice. Student Scholars Day, Grand Valley State University.

Galen, L. W., Kurby, C., Guthrie, A., & **Leahy, K.** (2016). Religiosity is inversely related to trust in a controlled economic interaction. Student Scholars Day, Grand Valley State University.

Galen, L. W., Kurby, C., Dopheide, L., & **Leahy, K.** (2015). Religiosity and trust as a function of shared identity. Student Scholars Day, Grand Valley State University.

Leadership Activities: I have been a Resident Assistant for the three years. I spent one year in the Murray/VanSteeland/GVA community and past two years in Niemeyer as part of the Niemeyer/Calder community. I was Vice President of

Activities/Awards: Since my freshman year, I have been a published author in five editions of Grand Valley's student journal, *Running Out of Ink*. Also my freshman year, I was a "Freshman Honoree" Award Recipient from the Phi Kappa Phi National Honor Society. In 2015 and 2016, I was an award recipient of the "I Am Grand Valley" award and the "Lead Like a Laker RA" award. My junior year I was the recipient of the Greta and Arthur DeLong Psychology Scholarship. This year, I was the first recipient of Grand Valley State University's Psychology Student of the Year award.

Greatest accomplishment while at Grand Valley: Graduating without a caffeine dependence.

Plans after graduation: Begin an independent research project with Dr. Wildey in the psychology department, gain clinical experience, and reapply to PhD programs in Clinical Psychology.

Emma LeFranc, Marketing, Minor in Nonprofit Administration



Senior Project title: "Dream Room" Website Design

Summary of senior project: I designed a website using Photoshop to gain graphic design experience. I created a desktop layout and a mobile layout for the website. Additionally, I wrote a supplemental paper discussing the web design process and website tactics for successful Internet marketing. The goal of "Dream Room", the website I created, was to help individuals that were decorating their homes find items that matched their unique style preferences. Visitors to the site could choose the room they wanted to decorate, select their desired color-scheme, and describe their desired style for the space. Using this information, Dream Room would generate a customized list of product recommendations from different stores that matched the user's selected criteria.

Activities/Awards: I have been a member of the Humane Society Club on campus since my freshman year and I held an E-board position in the club for one year. I was also an active volunteer at the Humane Society of West Michigan. For 2017, I was one of GVSU's Outstanding Intern of the Year nominees.

Internship/Practicum experience: During the winter 2017 semester, I was an intern at Guiding Light in downtown Grand Rapids. Guiding Light is a nonprofit organization that helps individuals struggling with homelessness and substance abuse with recovery and getting back to work. I worked in the Development department, helping out with various marketing tasks. I used Adobe Illustrator and Photoshop to design invitations for events and to create graphics for use on flyers and social media.

Greatest accomplishment while at Grand Valley: My greatest accomplishment has been maintaining a spot on the Dean's List.

Plans after graduation: I plan on pursuing a career in Marketing in the Grand Rapids area.

Gabrielle Lemmen, Nursing



Senior Project title: A Comparative Analysis of Infant Mortality in the United States and Ghana

Summary of senior project: This paper defines infant mortality and its significance in determining the health level of developed and developing countries such as the United States and Ghana. It identifies current mortality rates and provides an understanding of cultural, systematic, and socioeconomic factors that influence infant mortality. Also included is a comparison of current health systems and health practices present in the United States and Ghana and each countries efforts to reduce infant mortality. As an application to nursing practice, several categories of nursing professions are discussed according to their influence on the reduction of infant mortality and improved public health in the United States and Ghana.

Leadership Activities: Phi Sigma Pi National Honor Fraternity Service Committee Chair, GVSU Women's Club Softball Secretary

Activities/Awards: Phi Kappa Phi Freshman Honoree

Study Abroad experience: KCON Ghana Public Health Nursing Study Abroad

Internship/Practicum experience: 160 hours of clinical immersion at Helen DeVos Children's Hospital Neonatal Intensive Care and Pediatric Intensive Care units

Greatest accomplishment while at Grand Valley: Completing four years of rigorous study in the honors college and college of nursing while working part time and being involved in several campus organizations. Being the first GVSU Women's Club Softball team to compete in the NCSA World Series in Columbus, GA. Studying public health nursing abroad in Ghana.

Plans after graduation: Immediately after graduation, I will prepare for the NCLEX board exam and continue my RN job search. I also plan to continue working and volunteering with North Star Reach (a Serious Fun camp for children with serious health challenges) throughout the summer.

Erica Levy, Accounting



Summary of senior project: My senior project was writing a literature review of 38 research papers about Impression Management, which is an ongoing project with one of my accounting professors.

Leadership Activities: In my time at GVSU, I have joined and left a few clubs. One of my favorites was GVSU Belly Dance, which I joined with my roommates for the past two years. I also am a member of Beta Alpha Psi, the honors accounting organization at the Seidman College of Business, and I am currently the President of the GVSU Student Chapter of the Institute of Internal Auditors.

Study Abroad experience: I studied abroad in Dublin, Ireland last semester

Internship/Practicum experience: Internship during tax season with Helmholdt+Company, LLP in Grand Rapids last Winter.

Plans after graduation: This summer, I have taken an internship with the Michigan Department of Treasury as a Student Tax Auditor in Elmhurst, IL. I am also excited to announce that I have been accepted to the University of Notre Dame's Masters of Accountancy program, and will most likely begin my Masters there this Fall.

Jake Lindale, Biochemistry and Chemistry



Senior Project title: A Slow Experiment for Ultrafast Detection: Development and Implementation of the Theoretical Framework for Field-Correlated Infrared Absorption Spectroscopy. (Mentor: Dr. Stephanie Schaertel)

Summary of senior project: My thesis covered the basis for new theory involving infrared spectroscopy, the derivation and development of an appropriate framework in the light of quantum field theory, and the implementation of the theory to model experimental line shapes. The majority of the work

involved was determining all of the valid light-matter interaction pathways and learning complex analysis to evaluate the theoretical expressions by hand (cannot be solved by computer).

Research and presentations: I research in the Kovacs and the Lord research groups. For Dr. Kovacs, I do research in applied spectroscopy and the study of catalytic interfaces (similar to those in catalytic converters). I have presented this research at the ACS Green Chemistry and Engineering conference (Portland 2016), at the ACS National Conference (San Francisco, 2017), and gave my chemistry senior seminar on this research (Winter 2016). For Dr. Lord, I research organometallic catalysts computationally and have presented the research at the 2017 MU3C online conference.

Activities/Awards: Chemistry Department – Outstanding Senior Researcher Award; Honors College – Collaborative Achievement Award.

Greatest accomplishment while at Grand Valley: Proving theory presented in my Honors thesis can reproduce the experimental spectra, confirming that the physics is accurate. Furthermore, this will allow for ultrafast time-scale events to be measured with greater ease.

Plans after graduation: I leave mid-May 2017 to begin as a Ph.D. student in the lab of the Duke Chair of Physics, Warren Warren. I will be a Research Associate for the summer and will begin classes in Chemical Physics in the Fall.

Erica MacDonald, Biology



Senior Project title: Crisis and Resource Phone Line Needs Assessment

Summary of senior project: I have been researching the need for crisis and resource phone lines on college campuses. My main goal of the project is to work towards the creation of a new crisis resource here at GVSU. My project included evaluating the services Grand Valley already offers and the resources in the community students are being connected with.

Research and presentations: I presented my research on Sequence Improvement and Gene Annotation for *Drosophila eugracilis* at Student Scholars Day.

Leadership Activities: I am the president and founder of the Genetic Counseling Organization here on campus and have served as a Transitions Leader.

Activities/Awards: I was selected for the I am Grand Valley campus leadership award and nominated for Biology senior of the year. I'm a member of BRCAn't Stop Me, PALS, Alternative Breaks, and Best Buddies.

Internship/Practicum experience: I have interned at a genetic counseling cancer clinic in Ann Arbor.

Greatest accomplishment while at Grand Valley: I think my greatest accomplishment through college has been gaining the courage to dream big, get involved, and pursue friendships that will last.

Plans after graduation: I plan to work towards my master's degree in Genetic Counseling.

Clayton Mandigo, Mechanical Engineering, Minor in Biomedical Engineering



Summary of senior project: My senior project is the redesign and build of a three-axis motion simulator for use in testing avionics. The project is being done for and is sponsored by L-3 Avionics in Grand Rapids, MI, one of the top ten defense contractors in the world. Each axis must be able to simultaneously move at least 270 degrees with an accuracy of 0.1 degrees in order to simulate the roll, pitch, and yaw of an aircraft. Upon completion this summer, the system will be put into daily testing use by L3.

Leadership Activities: I have been involved in many successful projects in my time at Grand Valley. One of the most significant of these was the development of a chair to help comfort children with spectrum disorders, Autism in particular. This chair, nicknamed the “hugging chair,” simulated the sensation of a hug through the use of foam pads and pressure controlled, inflating air bags positioned around the upper arms and shoulders. The chair was built for and donated to Ottawa Area Center, a local intermediate school district specializing in care for special needs children. The chair is highly favored by the students and is in use daily at the school.

Activities/Awards: I am also involved in many activities inside and outside of Grand Valley. Since my freshman year of college, I have been a member of the GVSU club golf team, playing in tournaments across the Midwest against teams from

most Division 1 and Division 2 schools in Michigan. Aside from playing golf in my free time (which rarely exists in engineering school) I spend my time skateboarding, playing electric guitar, fishing, going to heavy metal concerts, traveling, and enjoying cold Michigan beers.

Internship/Practicum experience: I have spent the last two and a half years as an intern at Innotec where I have been provided with countless opportunities to grow as an engineer and spend time giving back to the community through stewardship.

Plans after graduation: After graduation I will begin working full-time as a mechanical engineer at Innotec in Zeeland, MI. I also plan to continue my education to obtain a doctorate in mechanical engineering with focus on biomechanics. My career goal is to work on the cutting edge of prosthesis development to improve the quality of life of amputees.

Kyra Marks, Biopsychology and Radiologic Imaging Sciences



Summary of senior project: For my senior project I chose to research and analyze the psychological themes of utopian novels from the 20th and 21st century. I evaluated the common elements of Utopian and Dystopian societies and the sociological implications of these books. Additionally, I wanted to explore the impact that these novels had on society.

Leadership Activities: I was the Vice President of Public Relations on the Waterski and Wakeboard club for two years as well as the Fundraising officer for one year.

Activities/Awards: I participated on the nationally ranked GVSU Waterski and Wakeboard club. I was also a member of the Cognitive Neuroscience Club.

Internship/Practicum experience: I have had an internship at Spectrum Health since August where I am working in the Radiology department as an MRI technologist.

Greatest accomplishment while at Grand Valley: My greatest accomplishment was not necessarily a personal accomplishment. My greatest accomplishment was being part of the Waterski and Wakeboard club that qualified for nationals every year I was here at GV (3 times in division 1 and twice in division 2). Additionally, I am proud that we were able to win the Spirit Award during two of our Nationals appearances, meaning that tournament officials felt our team showed the most school spirit and support for our teammates throughout the entire tournament.

Plans after graduation: For now I plan to stay in Grand Rapids. I will finish up my internship at Spectrum Health this summer and take my national certification exam to become a Registered MRI Technologist. I hope to find a job working in the Grand Rapids area at a local hospital.

Dayne Martinez, Biochemistry



Title of Senior Project: Microglia: Dynamic Sculptors of Neural Circuits in Health and Disease

Summary of senior project: Recent research has demonstrated that microglia play a role in the regulation and elimination of synapses, a process that is necessary for proper brain functioning. My senior project is a review of current research with a focus on how this synaptic pruning may become dysregulated in certain disease states.

Leadership Activities: I spent three years as a mentor for incoming honors freshmen.

Research and presentations: I worked in the lab of Dr. Merritt Taylor at GVSU. My research was centered on Nato3, a protein that drives the development of dopaminergic neurons. The overall goal of this work was to

modify Nato3 to make it more efficient at generating this important subtype of neuron. I presented this project both at GVSU Student Scholars Day and at the Neuroscience 2015 conference.

Activities/Awards: I am a member of the Pre-MD/PhD Club. I work as a chemistry tutor. I received the Academic Excellence Award in Biochemistry.

Internship/Practicum experience: I participated in two summer research programs: UM-SMART at the University of Michigan and the SENS Summer Scholars Program at The Scripps Research Institute.

Greatest accomplishment while at Grand Valley: The greatest thing that I will take away from my time at Grand Valley is my network of mentors. Their advice and encouragement have made my successes possible, and I would be remiss not to express my gratitude for all of their support.

Plans after graduation: I will apply to MD/PhD dual degree programs.

Jordyn McCarthy, Social Work, Minor in Spanish



Senior Project title: My senior project title is “The Evidence Behind Evidence Based Practice”

Summary of senior project: My senior project analyzed the content that the GVSU Counseling Center therapy groups use and compared them to current research debating what constitutes a practice as an Evidence Based Practice. Evidence Based Practice is widely accepted in the social science community, but not easily defined.

Leadership Activities: Throughout my

time at Grand Valley, I've been involved in Student Senate on the Campus Affairs Committee, VP of Organizational Development for Alpha Sigma Tau, Service Chair for Alpha Sigma Tau, Transitions Leader, and an Honor's Mentor.

Activities/Awards: I am Grand Valley Award, Dean's List, Campus Ministry small groups

Study Abroad experience: I studied abroad in Chile for 9 weeks

Internship/Practicum experience: I interned at the Ottawa County Juvenile Detention Center for the 2016-2017 school year. I focused on leading social skill activities and goal setting groups with the juveniles.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley was helping to fundraise money through my sorority, Alpha Sigma Tau, to help the American Cancer Society at Relay for Life each year.

Plans after graduation: I will be attending the University of Michigan for the fall 2017 school year to obtain my Master of Social Work degree.

Joseph McCartney, Statistics with an emphasis in Actuarial Science



Senior Project title: Validation of Coding Rubrics to Measure Student Understanding of the Words Parameter and Statistic

Summary of senior project: Dr. Neal Rogness, a statistics faculty member, has worked with other faculty and myself to address a lexical ambiguity issue appearing in introductory statistics classes. The goal of his project was to assist professors in helping their students distinguish between the colloquial and statistical definitions of problematic words in their class. Computer models were created to categorize student definitions into predetermined categories based on rubrics to evaluate the project results. The focus of my project was to test the computer models by hand coding data to verify the computer's accuracy.

Research and presentations: NSF funded Lexical Ambiguity research project with GVSU Statistics Department.

Internship/Practicum experience: Actuarial analyst intern at Priority Health, Statistical analyst intern at DTE Energy, and

Sales analyst intern at Midway Products Group Incorporated.

Greatest accomplishment while at Grand Valley: I was given the opportunity of the statistics department research position as well as my 3 internships. Being able to contribute in all of these positions was my greatest accomplishment.

Plans after graduation: Biostatistics Master's program at GVSU.

Aimee McKenzie, Nursing



Senior Project title: Catholic Hospitals in American Healthcare

Summary of senior project: My project is a paper that explores the history of Catholic hospitals, which constitute a substantial portion of American healthcare, and the impact they have had on our nation's healthcare systems. It examines the differences between Catholic and non-Catholic hospitals and compares patient experiences within different organizations.

Internship/Practicum experience: My final semester in the nursing program included a Leadership Rotation during which I completed 160 clinical hours within 6 weeks under the supervision of a nursing preceptor on the Neurosciences Unit at Mercy Health Saint Mary's.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley has been learning about myself, finding my purpose, and growing both personally and professionally.

Plans after graduation: After graduation I will be preparing to take my state boards. I am currently exploring my options for employment as a Registered Nurse in acute care.

Shelby McKenzie, Nursing



Senior Project title: Representation of World War II Nurses in Novels: Truth or Fiction

Summary of senior project: For my project, I examined the portrayal of World War II nurses in the novels *Atonement* by Ian McEwan, *The English Patient* by Michael Ondaatje, and four novels from the *Cherry Ames* series by Helen Wells. I read many previously published real-life accounts of WWII nurses and used these for comparison in determining which aspects of nursing in these novels were accurate and which

aspects were poorly reflected. I presented my findings as a poster presentation at Student Scholars Day and wrote an article which I have submitted for publication in the *Grand Valley Journal of History*.

Internship/Practicum experience: For my final semester in the nursing program, I completed my leadership clinical rotation at Spectrum Health Gerber Memorial Hospital's intensive care unit. I completed 160 hours of direct patient care under the supervision of a nursing preceptor in six weeks.

Greatest accomplishment while at Grand Valley: The accomplishment of which I am most proud is the friendships I have made while at Grand Valley.

Plans after graduation: I will be preparing to take state boards and am currently exploring employment options as a registered nurse in acute care.

Jennifer Moon, Mathematics



Senior Project title: Mobile Application for Rook Polynomial Games

Summary of senior project: Rook polynomials are an interesting mathematical concept easily taught to students through the use of games. For this project, Molly Alger and I developed an Android application, under the guidance of Dr. Feryal Alayont, to teach students the general concept of rook polynomials.

Research and presentations: I conducted research at the 2016 Muhlenberg College REU in the general areas of graph theory and game theory, and presented results from this research at the 19th Annual Nebraska Conference for Undergraduate Women in Mathematics. Additionally, I conducted research on a generalized Young's lattice for generalized Frobenius partitions with Dr. Brian Drake, and presented my findings to the math department.

Leadership Activities: I have been the volunteer coordinator for Math-Team-Matics, a mathematics

competition held on campus for middle to high school students, for the past two years.

Activities/Awards: I have been on the Dean's List every semester, and am a member of the American Mathematical Society, Mathematical Association of America, Association for Women in Mathematics, Pi Mu Epsilon Honorary Mathematics Society, and Math Alliance. I have received the I am Grand Valley Leadership Award and the Outstanding Senior Award from the mathematics department.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley has been gaining the confidence to conduct my own research and getting accepted to graduate school.

Plans after graduation: I will be attending the Park City Mathematics Institute Undergraduate Summer School in Utah this coming summer, then beginning a PhD program in mathematics and Graduate Teaching Assistantship at the University of Nebraska-Lincoln in the fall.

Allison Morlock, Allied Health Sciences, Minors in Dance & Psychology



Senior Project title: *Reflections on Honors Study Abroad: The Millennium Development Goals and Their Impact in Ghana*

Summary of senior project: My paper described what the Millennium Development Goals are, why they were created, and how their impact and progress has specifically effected Ghana. I focused on Goals Four, Five and Six concerning child mortality, maternal health and malaria; and I connected my research with my study abroad experience.

Research and presentations: I worked as a data collector for Dr. Ranelle Brew in the Public Health Department on her work with Grand Valley's sHaPe (Summer Health Activities and Professions Exploration) Camp.

Leadership Activities: I was a sHaPe Camp Counselor through the Public Health Department and a LifeGroup Leader with Campus Ministry @ GVSU.

Activities/Awards: My activities throughout college include Momentum Dance Club, Pre-Occupational Therapy Club, Alternative Breaks, Cru Campus Ministries and Campus Ministry @ GVSU. My awards include being a Phi Kappa Phi freshman honoree, Phi Kappa Phi member, and Frederik Meijer Honors College Outstanding Senior finalist.

Study Abroad experience: In the summer of 2015 I participated in the Honors Service Learning and Cultural Exchange Program in Ghana, West Africa. We took a class at the University of Ghana in Accra and then lived in Winneba for six weeks, observing and volunteering in various hospitals.

Greatest accomplishment while at Grand Valley: Studying abroad with the Honors College was one of my greatest accomplishments at Grand Valley, in addition to being a member of the Phi Kappa Phi National Honors Society.

Plans after graduation: After getting married in July and moving to Ohio, I will begin graduate school at the University of Toledo for my doctorate in Occupational Therapy.

Joshua Morris, Electrical Engineering



Senior Project Title: Radio Frequency Collar

Summary of Senior Project: Create a GPS tracking collar for wildlife.

Leadership Activities: Tau Beta Pi

Activities/Awards: Intramural Soccer

Internship/Practicum Experience: Gentex

Greatest Accomplishment while at Grand Valley:
Graduating

Plans After Graduation: Work and travel.

Kathryn Mulcahy, Supply Chain Management & Marketing



Senior Project title: The Implications of Progressing Technology on Supply Chain Management

Summary of senior project: An analysis of how robots, drones, 3D printing, and autonomous driving technology are impacting global business. This research essay was completed in collaboration with student Melanie Murphy.

Research and presentations: In 2015 and 2016, was a member of the GVSU team in the annual General Motors/WSU Supply Chain Case Competition. In 2015, was selected to participate in a Supply Chain Consulting Course at GVSU, in which GVSU students conducted research for LeanLogistics, a third-party Logistics company in Holland, MI.

Leadership Activities: Executive Vice President of Spotlight Productions, which is GVSU's on-campus events programming board. Director of Membership Relations for the GVSU chapter of the American Production and Inventory Control Society (APICS).

Member of the National Society of Collegiate Scholars and Sigma Alpha Lambda, both national leadership and honors organizations.

Activities/Awards: Member of Spotlight Productions for four years, nearly all of which were spent on the Executive Board. Member of APICS for three years, two of which were spent on the Executive Board. Active member of Beta Gamma Sigma, an international honor society in business and management. Recipient of the "I am Grand Valley" award for four consecutive years and was honored to be on the homecoming court in fall 2016.

Internship/Practicum experience: In 2015, interned with Plastipak Packaging (Plymouth, MI) as a member of the Global Procurement team. In 2016, interned with General Motors (Warren, MI) as a member of Container Design & Engineering team.

Greatest accomplishment while at Grand Valley: Through extensive involvement in Student Life, strove to help make GVSU a home for all students.

Plans after graduation: Beginning a career with General Motors in August 2017 as a member of their Global Purchasing and Supply Chain rotational program.

Katelyn Mulder, Computer Science, Minor in Mathematics



Senior Project Title: AtomAction: A Pedagogical Tool

Summary of senior project: Beginning chemistry students sometimes have difficulty imagining life at the molecular level; the concept of electrostatic molecular interactions and the forces behind it are difficult to learn and even harder to visualize. The central focus of the project was to create a pedagogical tool designed to aid chemistry students in visualizing the behavior of molecules, specifically, intermolecular interactions.

My main focus was learning two new

programming languages, the chemistry involved in molecular interactions, and implementing the initial desktop program. The program models intermolecular interactions using Basic Störmer–Verlet Integration to calculate position changes and accounts for Lennard-Jones forces, Van Der Waals forces, and Spring forces when simulating the molecular motions.

Research and presentations: Computer Science Senior Project: My Computer Science Senior Project was to develop a prototype web application to aid 911 dispatchers. This was a group project that was sponsored by Motorola Solutions. The main goal of this project is to utilize recent advances in technology, such as Audio-to-Text translation, Natural Language Processing, and context recognition, to assist 911 dispatchers by analyzing calls and presenting relevant information to the dispatcher. Our project involved developing a chat-bot that would gather information from callers and their devices while they are waiting for a dispatcher and to display this information to the dispatcher in a call queue. Another aspect of the project was to analyze the call information, connect this information to previous calls or to other related calls - such as a large traffic accident - and displaying this information to the dispatcher, functionality that current Computer Aided Dispatch software does not have.

Internship/Practicum experience: During the Summer of 2016, I interned as a software developer at Auto Owners Insurance. Over the course of the internship, I worked with another intern on migrating and integrating an old file system into the database system in use companywide. We also programmed a web application to search, access, and edit the information in addition to automatically generating PDF reports on specified subsets of the data that were previously created by hand.

Plans after graduation: After graduation, I will be starting a job at Auto Owners Insurance that I was offered during my internship. I will be a Software Developer and will be working with databases and developing web applications.

Melanie Murphy, Supply Chain Management



Senior Project title: The Development of Supply Chain Management

Summary of senior project: The project examines how supply chain has evolved and the innovations that are coming to this ever-evolving field.

Leadership Activities: I have been on the e-board of APICS since freshman year and have been President for the past year. In that year, I have worked to collaborate APICS with other Supply Chain organizations on campus to form the Seidman Supply Chain Management Association (SSCMA), in which I am also the president.

Activities/Awards: I joined the Seidman Mentorship program, which aided my introduction to the SCM field. I have participated in multiple case competitions including MSU's Bowersox Case

Competition and GM Wayne State Competition. I was also a member on the GVSU Consulting Project where we assisted a local company in a research project.

Study Abroad experience: I studied abroad for the 2016 Winter semester in Bilbao, Spain at the University of Deusto.

Internship/Practicum experience: I interned for Supply Chain Solutions, a 3PL in Kentwood, and for Abbott Laboratories in Chicago, IL and Columbus, OH.

Greatest accomplishment while at Grand Valley: My greatest accomplishment was winning the R. Gene Richter Scholarship through the Institute of Supply Management.

Plans after graduation: I am going into a full-time rotational program with Abbott Laboratories. For the next 3 years, I will be traveling and moving around the nation (and world) in different fields and positions!

Darby Naheedy, Medical Laboratory Science



Senior Project title: Antibacterial Effectiveness of Essential Oils Against Common Pathogens

Summary of senior project: More now than ever, people are using essential oils rather than prescribed antibiotics. This study evaluates the effectiveness of three essential oils against three common bacterial pathogens.

Research and presentations: Agriculture's Impact on Antibiotic Resistance, Evaluating the Stability of CBC Results at Room Temperature, Academic Stress Among College Students

Leadership Activities: Pre-SOMA Co-Social Coordinator, Member of both Honors Mentor Council, and Omicron Delta Kappa.

Activities/Awards: I am Grand Valley 2015&2017, Dean's List 2014 – 2016, Award for Excellence 2013 – 2017

Internship/Practicum experience: Eighteen-week

clinical practicum at Allegan General Hospital's laboratory as a medical technologist student

Greatest accomplishment while at Grand Valley: Apart from learning, not only through curriculum but other students/faculty as well, knowing I have helped first year students transition through the honors college for the past three years through the mentor program has been very rewarding.

Plans after graduation: Attend graduate school

Lucas Negen, Spanish



Senior Project title: Religion and the Picaresque

Summary of senior project: Religion has been criticized throughout the ages, especially by intellects during periods of great ideological advancement – e.g. the Enlightenment. The Picaresque form of novel has been obtaining the same goal, centuries before the first vestiges of the Enlightenment took hold in France.

Activities/Awards: La Tertulia

Study Abroad experience: Bilbao, Spain – La Universidad de Deusto

Internship/Practicum experience:
MACkiteboarding

Greatest accomplishment while at Grand Valley:
The development of friendships and academic connections that will last for a lifetime.

Plans after graduation: Work with the Latin American clientele within the kiteboarding industry; travel to further business connections

Julie Nichols, Sociology



Senior Project title: Understanding Childhood Hunger and Non-profit Emotional Labor: Interviewing Kids' Food Basket Employees

Summary of senior project: Writers are often told to "write what you know." As a sociologist in training, I think this advice can be applied to sociological research too. Since June of 2016 I have been a communications intern at Kids' Food Basket, a local west Michigan non-profit that seeks to end childhood hunger and food insecurity (which refers to the lack of access to enough food to fully meet basic needs due to lack of financial resources). My official title is Writing and Special Projects Intern, a position that has led me to various tasks and many

learning opportunities through the guidance of practically each and every employee at Kids' Food Basket. Thus, for my honors senior project, I will be interviewing all 23 employees at Kids' Food Basket's Grand Rapids location to gain insight from them on three specific topics related to childhood hunger, food insecurity, emotional labor (the process of workers managing and regulating feelings and expressions so that they can fulfill the emotional requirements of a job).

Research and presentations: Content analysis of 1960s Girl Group music (ex. The Supremes, The Shirelles, etc.) for my Qualitative methods class & surveyed over 200 students on their eating habits for my Quantitative methods class.

Leadership Activities: President of Grand Valley English Society for two years, previously secretary for one year & writer for The Black Sheep Online for over two years.

Internship/Practicum experience: Writing and Special Projects intern at Kids' Food Basket & Student Research Assistant at the Johnson Center for Philanthropy.

Greatest accomplishment while at Grand Valley: I never had to pull an all-nighter

Plans after graduation: Applying for non-profit positions in the Grand Rapids area, but looking to continue working at Kids' Food Basket.

Brian Nordstrom, BBA – Marketing and General Management



Senior Project title: Independent League Baseball: Building the Blueprint to Success

Summary of senior project: This project is two-fold. First, it is an economic analysis of what it takes to make an independent baseball league (unaffiliated with an MLB organization) a success and why so many have failed. Second, this information is used to build a marketing plan for the United Shore Professional Baseball League (a league I interned at the previous summer during their inaugural season) to lead to sustained success.

Leadership Activities: Assistant volunteer youth baseball coach for five consecutive seasons.

Activities/Awards: Seidman School of Business, Grand Valley Award for Excellence Scholarship, Dance Troupe of GVSU

Internship/Practicum experience: Marketing/ Box Office Management Intern at the United Shore Professional Baseball League

Greatest accomplishment while at Grand Valley: Professional and personal growth interning at the USPBL.

Plans after graduation: After graduation, I plan to pursue a career in the sports marketing industry, with a potential to return for a Masters in Sports Management/Marketing.

Katie Nylaan, Management and Marketing



Senior Project title: Trip Planner Mobile App

Summary of senior project: I designed a trip planner application that allows users to book hotels, purchase airline tickets, and rent a car. I chose this project to learn more about mobile app development. I've had exposure to the print side of design through my internships, but haven't had the chance to work on web based projects. This project was one of my first opportunities to learn the basics of mobile app design, and it was a beneficial experience. Many companies, like AirBnb, served as a source of inspiration.

Activities/Awards: I was the 2016 recipient for the Outstanding Student in General Management award. I also served as a Committee Member for the Humane Society

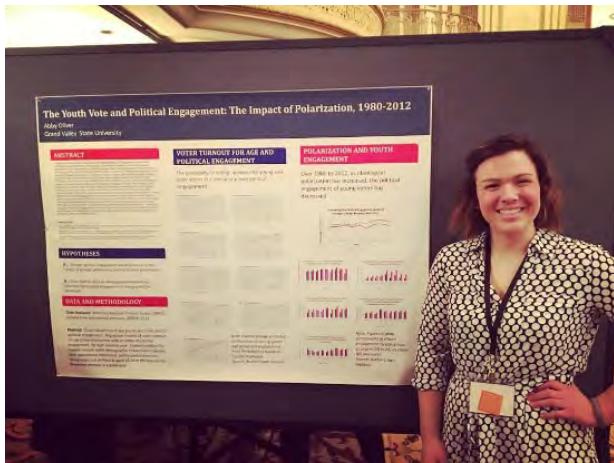
of Grand Valley and volunteered at the Humane Society of West Michigan.

Internship/Practicum experience: I have been fortunate enough to have 4 internship experiences during my time at Grand Valley. Before discovering my passion in Graphic Design, I had Human Resource Internships at PADNOS and Mercantile Bank. Currently, I have two Graphic Design Internships at the Division of Inclusion and Equity and Office for Community Engagement, where I work on a variety of print projects for wide audiences.

Greatest accomplishment while at Grand Valley: My greatest accomplishment was being recognized by the Seidman College of Business and the University as the Outstanding Student in General Management.

Plans after graduation: I accepted a position as a Corporate Digital and Print Designer at Auto-Wares in Grand Rapids. I also work as a Freelance Graphic Designer, where I specialize in print design.

Abigail Oliver, Political Science



Senior Project title: The Youth Vote and Political Engagement: The Impact of Polarization, 1980-2012

Summary of senior project: Using statistical data analysis techniques, I studied the impact that ideological polarization on relationship between political engagement and voter turnout of young voters.

Activities/Awards: In addition to the activities listed in the previous section, I also participated in the GVSU Marching Band my first two years of college.

Leadership Activities: I was the Financial Officer for GVSU Model UN during my Junior and Senior year. I also served on various E-Board positions for the GVSU College Republicans during my Junior and Senior year as well. For a year now, I am the president of Phi Sigma Alpha, which is the honors fraternity for Political Science majors.

Internship/Practicum experience: I was a Research Intern at the Program for Public Consultation in Washington D.C. and a Political Intern at the Kent GOP in Grand Rapids, MI

Study Abroad experience: The summer of my Junior year, I studied abroad in Angers, France. The focus of the trip was the European Union and Economics.

Greatest accomplishment while at Grand Valley: Presenting my senior project at a national conference.

Plans after graduation: Working as an Administrative Assistant at a local steel company, called Steel Stud Solutions.

Kortney Ondayko, Women, Gender and Sexuality Studies



Senior Project title: A Programmatic Evaluation and Analysis of Grand Valley State University's Gender Based Violence Prevention Programming

Summary of senior project: This project examines GVSU's gender based violence prevention programming based on the Centers for Disease Control and Prevention's Nine Principles of Effective Prevention Programs and the Social-Ecological Model. The purpose of this programmatic review is to understand the depth of GVSU's prevention programming - specifically looking for areas that need improvement. This is the first comprehensive evaluation of GVSU's

gender based violence prevention programming. Each GVSU program is analyzed based on all of the CDC's nine principles by performing a discursive analysis on presentation/activity materials. In addition, the project analyzes the audience of GVSU's gender based violence prevention programming by collecting data from participant evaluations.

Research and presentations: RAD: Perpetuating Dangerous Myths About Sexual Assault, Co-Facilitator of 2017 GVSU Teach In Session, "Survivor Behavior: Navigating A Culture of Blame"

Leadership Activities: Secretary of Phi Mu Fraternity 2014-2015, Vice President of Philanthropy and Service for Panhellenic Council for 2015-2016

Activities/Awards: Recipient of the 2016 Jean Enright Memorial Scholarship, "I Am Grand Valley" Award and Brooks College Study Abroad Scholarship

Study Abroad experience: Women, Gender and Sexuality Studies Study Abroad Program in South Africa

Internship/Practicum experience: Violence Prevention Intern at Family Futures, Legal Intern at Kent County Office of the Defender, SHAWCO International Volunteer at Manenberg Primary in Capetown South Africa

Greatest accomplishment while at Grand Valley: Finding and following my voice and passion within Feminist work and theory

Plans after graduation: To continue learning, growing and working toward equity for all people. Hopefully first in a job then eventually in graduate school!

Maxwell Phillips, Biomedical Sciences



Senior Project title: Analysis of the Chemical Communication System of Crayfish

Summary of senior project: My work has focused on studying the neuroendocrine mechanisms and communication systems that establish social dominance among crayfish, in an aquatic ecosystem. The primary consequence of aggressive interactions among crayfish, is the formation of a social hierarchy for resources. The data collected from the study strengthened the claim that social interaction among crayfish, is likely influenced by chemical signaling.

Research and presentations: During my freshman and sophomore years I performed bench research which focused on potential therapeutic treatments for neurodegenerative disorders. Currently, I am working in a lab that studies aggression habits of keystone aquatic species in response to various environmental and chemical stimuli. Initially, I performed data

analysis for a graduate students Master's Thesis. My observations were used to perform statistical calculations and the results will be published in a peer reviewed journal.

Leadership Activities: Lifeguard, Helen Devos Children's Hospital Volunteer Trainer, and Teaching Assistant—Human Histology

Activities/Awards: Recently, I was inducted into the Phi Kappa Phi National Honor Society. Membership is by invitation only and I was identified as being in the top 10% of my class. I have also been recognized as one of the BMS departments, Graduates of Distinction. Of the 250-300 students graduating with BMS degrees this upcoming April, only 27 were granted the Graduate of Distinction award.

Greatest accomplishment while at Grand Valley: I would say that my greatest accomplishment at Grand Valley involved scoring in the 97th percentile on the ACS. This is a national test that all Organic Chemistry students take after their second semester of Organic Chemistry.

Plans after graduation: I am looking forward to attending medical school and becoming a physician. Based on my shadowing experience, I am currently interested in Emergency Medicine and a few surgical specialties.

Gabrielle Pomorski, Behavioral Neuroscience



Senior Project title: Observed Histamine levels in *Drosophila melanogaster*

Summary of senior project: I did independent research using an electrochemical technique called fast-scan cyclic voltammetry to measure neurotransmitter activity in *Drosophila melanogaster* (fruit flies).

Research and presentations: I presented a workshop titled 'Reflecting on Service' at the 2017 Alpha Phi Omega section 53 conference.

Leadership Activities: Throughout my time at Grand Valley I have been selected for many leadership roles in various campus organizations. Since 2015 I have been a Team Leader for the GVSU Telephone Outreach Program. I have also spent 2 years as a Site Leader with GVSU Alternative Breaks. Finally,

through GVSU's chapter of Alpha Phi Omega, national service fraternity, I have held multiple leadership roles including Vice President of Fellowship, New Member Educator, and Chapter President.

Activities/Awards: As an additional activity, I spent one year as a mentor through GVSU's Pals Student Mentor program. I am a 4-time recipient of the I Am Grand Valley award. I have also received various community service and leadership awards from GVSU's chapter of Alpha Phi Omega.

Internship/Practicum experience: During my time at Grand Valley I completed two summer internships with the Client Relations team at Quicken Loans Inc. in Detroit, MI.

Greatest accomplishment while at Grand Valley: While at Grand Valley I became a certified crisis counselor and have spent over 300 hours in my role as a volunteer counselor for Crisis Text Line.

Plans after graduation: I plan to pursue a Master's Degree in Genetic Counseling

Megan Ponke, Biomedical Science with Nutrition Sciences Emphasis



Senior Project title: Measuring the Efficacy of the Revive and Thrive Project

Summary of senior project: The Revive and Thrive Project is a non-profit organization in Grand Rapids which combines healthy foods, community education, and teenage volunteers to provide healthy meals for cancer patients and their families or caregivers. I created a survey to distribute to participants to determine the effectiveness of the program. It included questions concerning clients' satisfaction, their perception of healthy food and cooking, effect on stress levels, weight maintenance, and how the project impacted their overall well-being.

Leadership Activities: President of the Food and Nutrition Club

Activities/Awards: Alternative Breaks, Food and Nutrition Club, I am Grand Valley recipient.

Internship/Practicum experience: BMS Internship at the Revive and Thrive Project establishing a client database, presented at Student Scholar's Day.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley was completing the Gazelle Girl half marathon. I will be participating in the Gazelle Girl again this year, and hope to stay involved in the years to come.

Plans after graduation: Grand Valley's Master of Science in Clinical Dietetics program to pursue a career as a Registered Dietitian.

Melody Posthuma, Business Management, Entrepreneurship, Dance



Senior Project title: Cincy Dance & Fitness Feasibility Study

Summary of senior project: My senior project was a feasibility study for a holistic health fitness and dance facility. My primary research centered on the health industry, how services are provided, and the culture of these facilities. I worked alongside my entrepreneurship professor, Tim Syfert, to analyze and define this startup's value propositions, target market, competitive landscape, industry characteristics, business model, marketing approach, startup costs, cashflows, and break even projections.

Leadership Activities: Dance Instructor at the Boys & Girls Club (2016), Campus Ministry Life Group Leader (2015-16), Vacation Bible School leader (2015), Camp Counselor at Epic Summer Camp (2015)

Activities/Awards: Beta Gamma Sigma Member (2017), GVSU Outstanding Student in the Entrepreneurship Major (2016), Phi Kappa Phi Member (2015), "I am Grand Valley" Leadership Nominee (2015), National Society of Collegiate Scholars (2014)

Internship/Practicum experience: Marketing Intern at Otterbein Senior Lifestyle Choices (2015), Work Study at Hubbard Street Dance Chicago (2016).

Greatest accomplishment while at Grand Valley: My senior solo dance work, "uncarved," and group piece, "Yada" is featured in the Michigan Emerging Graduate Artists (MEGA) Exhibition at Urban Institute for Contemporary Arts (UICA) 2017.

Plans after graduation: After graduation, I plan to continue pursuing performance and choreography opportunities. In addition, I will expand my photography business, website design, and content creation for small businesses in the greater Grand Rapids area. I am in the midst of deciding what my career will embody, whether it be an entrepreneurial venture, co-directing and managing a dance studio, or a position in marketing and consulting.

Devin Prasatek, Writing



Senior Project title: Consultants in the Classroom: Integrating Writing Consultants into First-Year Writing Courses

Summary of senior project: As a writing consultant, I wanted to figure out how to streamline the process of a writing consultant in a WRT 150 lab. Therefore, the goal of my senior project was to identify the best practices for consultants and professors when it comes to incorporating consultants in the labs. I conducted observations and interviews, and wrote a 25 page research paper based on the research and findings.

Activities/Awards: My poetry was published in *Brainchild Magazine* in Winter 2014 and also Winter 2016. I was a writer for the *InWriting* Newsletter and joined several organizations (The Honors Society of Phi Kappa Phi, Omicron Delta Kappa National Leadership Honor Society, Sigma Tau Delta International English Honor Society, and Alpha Sigma Alpha)

Internship/Practicum experience: I interned for Dzanc Books, a small publishing company based out of Ann Arbor, MI. I was responsible for evaluating manuscript submissions and also proofreading various titles.

Greatest accomplishment while at Grand Valley: I consider my greatest accomplishment to be becoming a writing consultant.

Plans after graduation: I want to try out for Disney on Ice and travel the world while figure skating before eventually finding a career in writing.

Gretchen Pyscher, Therapeutic Recreation



Senior Project title: Barretstown Serious Fun Camp In Depth Program Plan

Summary of senior project: A therapeutic recreation program plan that would be used if you were the activities director at this camp. It covers the background of the camp, therapeutic recreation at Barretstown, and the facilities located at camp. The plan then delves into the goals and objectives of the week and has thorough protocols for each activity completed at camp. It continues with different managerial aspects like a management plan, budget, and a risk management aspects. It concludes with a calendar for the camp session, an animation plan for each event, and a media package for the camp session. The intents of this manual is if you knew little about running a therapeutic recreation camp session for children with serious illnesses this

program plan would pave the way for having a successful camp session.

Research and presentations: "Therapeutic Recreation Around the World"-student scholars day 2017, "Summer at Barretstown"-Global Health Day at Grand Valley State University

Leadership Activities: Treasurer for Fleece and Thank You 2016

Study Abroad experience: Ireland, field work at Barretstown Serious Fun Camp June-August 2016

Internship/Practicum experience: Therapeutic Recreation fieldwork at Barretstown Camp, Therapeutic Recreation Internship at PACES Life Circles Muskegon Fall 2017

Greatest accomplishment while at Grand Valley: Being in the Honors College is my greatest accomplishment. I was never supposed to be in the Honors College due to a low ACT score but I begged Dr. J to let me in and convinced him with a really long paper. Then, my sophomore year I got a D+ in Stats and was put on honors academic probation. I worked the next two semester's hard and still didn't make the cut. I begged Dr. J again to continue to let me stay and finally the next semester I made the cut. I may not be the smartest student here, but I know I tried my best throughout my college career.

Plans after graduation: Going back to Ireland working for Barretstown again and then internship at PACES Life Circles in the fall. After that the real world, where I hope to work for a community or camp based therapeutic recreation program.

Liz Ritchie, Biology



Senior Project title: The relationship between the intensity of raccoon roundworm infection and egg production.

Summary of senior project: My senior project focused on the correlation between raccoon roundworm egg quantity and the level of infection raccoons experienced. The overall goal was to see if we could predict how many eggs were being shed into the environment if we knew how many mature roundworms were present in an individual raccoon.

Research and presentations: I presented my raccoon roundworm research in the form of a poster at Student Scholars Day and am currently seeking publication for the work.

Leadership Activities: I have been an RA for the Women in Science and Engineering (WISE) community for two years. I am currently a TA for a genetics lab and am a part of the Phi Kappa Phi Honor Society and the National Residence Hall Honorary. Within the Murray International House

community, I served as a Sustainability Rep on the community council E-board and was also a peer mentor.

Internship/Practicum experience: I was an Antibody Expression and Engineering Intern at Zoetis. While there, I maintained a mammalian cell line with the goal being that of optimizing cell conditions to increase protein expression. My results have since been implemented in the company's experimental protein lab.

Activities/Awards: I have been an active part of the pre-veterinary club and as a result, have attended national pre-veterinary conferences. I tutored refugee children for a semester at the West Michigan Refugee Education and Cultural Center. I also volunteered at True Friends Camp in Minnesota for individuals with disabilities on an Alternative Breaks Trip. I served as an RA delegate at the 2016 MiRA conference hosted by GVSU. I also shared an audio story of my Laker experiences in the Mary Idema Pew Library exhibit called, "Connected: An Exhibit of Shared Laker Experiences." I have received the following awards: Outstanding Organic Chemistry Student, Lead Like a Laker Award, Special Recognition in Leadership Award, and the I am Grand Valley Award.

Greatest accomplishment while at Grand Valley: I came to GVSU from a small, predominantly white farming community in Southwest Michigan. My greatest accomplishment has been learning of and accepting my personal privileges. My experiences at GVSU have laid the foundation for becoming culturally competent.

Plans after graduation: I will be attending Michigan State University's College of Veterinary Medicine (DVM) program in the Fall. I hope to focus on large animal medicine following veterinary school.

Ashley Robinson, Biomedical Sciences, Minor in Chemistry



Senior Project title: Alzheimer's Disease and Type 2 Diabetes: Education for Improved Health

Summary of senior project: In my Biomedical Sciences capstone course, I researched the potential intersections in the prevention and treatment of Alzheimer's disease and Type 2 Diabetes that result from viewing Alzheimer's disease as an insulin resistance in the brain. Building upon this work, I adapted the information into an educational brochure for patients. It discusses Type 2 Diabetes, Alzheimer's disease, and their linked pathophysiology of insulin resistance. Additionally, it outlines the major intersections in the treatment and prevention of the two diseases: diet, exercise, and medication.

Leadership Activities: Last year, I was inducted into the GVSU Circle of the Omicron Delta Kappa National Leadership Honor Society.

Activities/Awards: During my time at Grand Valley, I have been involved in multiple clubs: Pre-PA club, Pre-Med Club, and the Future Alumni Association. I am also involved in a student research interest group focusing on Alzheimer's disease and other neurodegenerative disorders. I have also participated in many intramural sports during each of my four years at GVSU. In 2015, I received the GVSU Department of Chemistry Organic Chemistry Award.

Greatest accomplishment while at Grand Valley: My greatest accomplishment during my time at Grand Valley is being selected as a Biomedical Sciences Graduate of Distinction for the 2016-2017 academic year.

Plans after graduation: I hope to attend PA school following graduation.

Nicole Rochon, Biomedical Sciences, Pre-Physician Assistant



Senior Project title: Treatments for Alzheimer's Disease

Summary of senior project: I did a literary review of treatments for Alzheimer's Disease targeting the buildup of beta-amyloid plaques in the cerebrum and discussed the direction of future treatments.

Leadership Activities: Leadership positions within Gamma Phi Beta sorority, served as a recruitment counselor for the Panhellenic Association.

Activities/Awards: Member of Gamma Phi Beta sorority, member of pre-Physician Assistant club

Study Abroad experience: will be traveling to Panama on an International Service Learning trip to set up free health clinics to citizens who don't have accessible healthcare

Greatest accomplishment while at Grand Valley:
Becoming a Certified Nursing Assistant to gain clinical experience for PA school

Plans after graduation: Taking a gap year while gaining more experience for grad school and then hopefully attending PA school

Dallas Rohraff, Cell and Molecular Biology, Minors in Chemistry and Applied Statistics



how desperately each needed clean water, and the most appropriate method to provide it for them. I helped developed a health educational curriculum that will be implemented into a local school where we also helped build a handwashing station. We provided soap making lessons to ensure that the station would be a sustainable project for the community. My favorite part about my senior project was that I was able to use my knowledge and skill set that I have learned at GVSU to help create sustainable projects around the world.

Research/Presentations: Research is a major part of my life, and I cannot thank Grand Valley enough or providing me with research opportunities that have allowed me to develop my passion and a goal of becoming a federal researcher at the Centers for Disease Control and Prevention or the National Institutes of Health. I have done several research projects during my undergraduate career. The first involved analyzing the antibiotic activity of various essential oils as a Student Summer Scholar (S3) at GVSU. The second was at the University of Georgia as a Research Experiences for Undergraduates (REU) participant where I was funded by the National Science Foundation to analyze the nuclear division and small RNA production in a model fungus. I have been involved for several semesters now characterizing several cell division proteins in yeast at GVSU. I have been fortunate enough to present my research projects on and off campus at the S3 showcase and student scholar's day, the West Michigan Regional Undergraduate Science Research conference at the Van Andel Institute, the closing symposium at UGA, and in San Diego as a part of the American Society for Biochemistry and Molecular Biology at the Experimental Biology national conference.

Leadership Activities: I am the president of the Women in STEM club and Microbiology clubs and microbiology clubs. Member of the Cook Leadership Academy, active member of the Dance Troupe, Undergraduate Research Ambassador for the Office of Undergraduate Research and Scholarship, a tutor and laboratory prep technician for the Biology and Cell and Molecular Biology departments.

Activities/Awards: 2017 Catalyst Award for Service from the Cell and Molecular Biology Department.

Internship/Practicum experience: I am currently participating in an internship at NxGen MDx, a genetic counseling company in Grand Rapids.

Plans after graduation: I plan on working at NxGen MDx after graduation during a gap year before enrolling in graduate school to obtain my Ph.D. in immunology and microbiology.

Summary of senior project: I was fortunate enough to complete my senior project during my service-learning study abroad last summer in Ghana. The main goal of my project was to aid ISHEW (International Sustainability of Health, Education, and Water), and NGO in Ghana, in their development as a blossoming resource for humanitarian aid in Ghana. I worked on several small projects that worked to achieve this goal. First, I initiated the development of a locally produced biosand filter to increase sustainability of their clean water projects. Together, we were able to create a locally-sourced filter that successfully filtered a local water source. I also tested the water sources of several smaller communities to assess

Dustin Ruppert, Clinical Exercise Science



Senior Project title: The Effects of Hydrating with a Full-caloric and Non-caloric Beverage on Strength and Other Physiological Measurements

Summary of senior project: This study investigated how carbohydrates affect recovery after an exercise bout. Subjects in this study cycled on a cycle ergometer until 2% body weight reduction was obtained. Thereafter, subjects consumed either a carbohydrate containing beverage or a non-carbohydrate containing beverage. Physiological measurements, such as heart rate, core temperature, hydration status, blood glucose, lactate level, urine specific gravity, and maximal strength were recorded and compared among trials.

Activities/Awards: I was a member of the Pre-Physical Therapy Club where I helped raise money for multiple organizations and participated in community service projects. Additionally, I had the opportunity to play intramural sports and win a championship in intramural soccer. Lastly, I earned

a spot on the Dean's List every year of my university experience, and was able to graduate with the honors of Magna Cum Laude.

Internship/practicum experience: I completed my Internship at Northern Physical Therapy. This internship consisted of Personal Training, instructing fitness classes, attending marketing events, and helping to manage the fitness center with my mentor.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley is my 3.9 GPA.

Plans after graduation: I will pursue a Doctorate of Physical Therapy Degree

Colin Rutowski, Biomedical Sciences



Senior Project title: How Meat Consumption Rose in the US

Summary of senior project: My senior project involved analyzing various texts on the history of meat in the US. I then created a 15 page paper explaining that meat consumption increased as a result of technological innovations, consumer demand, advertising, and the interactions between the meat industry and government organizations and the public.

Research and presentations: For my capstone, I researched the physiological effects of intermittent fasting. I concluded that intermittent fasting will cause fat loss but beyond that, there are little to no other drastic changes on the body.

Leadership Activities: I held the officer position for Risk Management in CageFree club my senior year.

Activities/Awards: I've been an active member of Meditation club, CageFree club, and the Sustainable Agriculture Project for at least 2 years. I went on a Spring Alternative Breaks trip this year to Kansas to help those transitioning from homelessness to being an active member in society.

Greatest accomplishment while at Grand Valley: I had depression and suicidal thoughts my freshmen year. I saw a counselor and with his help, I got out of it and grew from being antisocial/afraid of social interaction to having lots of

friends, volunteering a lot, and getting heavily involved with clubs on campus. It's not a single accomplishment but rather a series of them resulting in growth as a person.

Plans after graduation: I have a few plans after graduation. Firstly, I'd like to move out of my house as soon as possible. I still don't have a clear direction for a career path (anybody seen *The Graduate*?) so I'm going to research careers in food sociology and/or communications then job shadow a lot and hopefully get an internship. In the meantime, I'm going to get a minimum wage job to pay the bills and I'll join Toastmasters because I love public speaking. I plan to volunteer a lot and join Meetups so I can make more connections and live a meaningful life. I'm also going to buy an ereader and continue to learn from books that way or you'll find me in the local library. Thanks to college, I've found subjects that I enjoy learning about so I'll continue to do that as long as I'm alive.

Alison Sall, Bachelor of Music in Performance



Senior Project Title: *On the Role of a Liberal Arts Education*

Summary of Senior Project: My senior project consisted of a research paper that endeavored to examine the role and value of a liberal arts education. The questions I attempted to answer are as follows: How should a liberal arts education cultivate Socratic values, and how do the arts and humanities contribute to the well-being of a democratic society?

Research and presentations: My junior and senior years I gave two violin recitals, performing pieces by composers such as Johann Sebastian, Paul Hindemith, and Samuel Barber.

Leadership Activities: I volunteered at GVSU String Leadership Day, an outreach program for local high school string players.

Activities/Awards: I performed in several chamber music ensembles and gave local elementary school students violin lessons. Regarding awards, I received the Helen DeVos Presidential Honors Scholarship and the Arthur C. Hills Scholarship, as well as an Honorable Mention in the Poetry Division of the Oldenburg Writing Contest.

Greatest Accomplishment while at Grand Valley: My greatest accomplishments were participating in the premiere performance of *Pilgrim Soul* (by American composer Augusta Read Thomas) for bass flute and two violins, and (rather spontaneously) minoring in English Literature.

Plans After Graduation: My plans after graduation are still undetermined, but I will likely remain at Grand Valley for an additional year to prepare for graduate school.

Carolyn A. Scharf, Nursing



Senior Project title: Reconnecting Veiled Minds Through Music

Summary of senior project: Measuring the success of a Music and Memory program at Allendale Nursing and Rehabilitation Center based on resident experience. Determining the psychological impact music has on symptoms, frequency of behaviors and antipsychotic medications in people with dementia.

Leadership Activities: Kappa Beta Chapter of Sigma Kappa Sorority, Kirkhof College of Nursing Student Nurses Association, National Society of Collegiate Scholars

Research and presentations:

Scharf, C., Gilliam, N., Juncaj, D., Norris, S., Rykse, S., Sanchez, T. & Schomacher, D. (April 13, 2017). Title. Grand Valley State University Civic Engagement Showcase. Grand Rapids, MI.

Scharf, C. (April 12, 2017). Reconnecting Veiled Minds Through Music. Grand Valley State University Student Scholars Day. Allendale, MI.

Scharf, C., Beel-Bates, C. (February 17, 2017). Reconnecting Veiled Minds Through Music. Grand Valley State University 12th Annual Art and Science of Aging Conference. Grand Rapids, MI.

Scharf, C., Beel-Bates, C., Gird, S. (October 25, 2016). Reconnecting Lost Minds Through Music. Grand Valley State University 5 X 5 Competition Finalist. Grand Rapids, MI

Scharf, C., Spoelstra, S., Schueller, M. (March 18, 2016). Symptom Experience of Cancer Patients Treated with Oral Anti- Cancer Agents: A Qualitative Analysis. 40th Annual Midwest Nursing Research Society Conference. Milwaukee, WI.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley has been growing into a successful, independent and driven young woman. I have found my calling to care for people, and I have created lifelong friendships and made my fondest memories and during my fours years at GVSU.

Plans after graduation: I have accepted a full-time Registered Nurse position at University Hospital of Michigan Medicine in Ann Arbor, MI. In fall of 2017, I will attend the University of Michigan Ann Arbor where I will pursue a Doctor of Nursing Practice (DNP) graduate degree to become an adult-gerontology primary care nurse practitioner (AGPCNP-BC).

Angela Schmitt, Music Education with Piano Performance Honors



Senior Project Title: Introducing Instruments: A Teacher's Guide to Full Ensemble Teaching of Beginning Band

Summary of Senior Project: This method book for beginning band addresses the best process to introduce each instrument simultaneously, via detailed steps inclusive of all instrument groups (woodwinds, brass, percussion). Detailed instrument sequences were compiled through analysis of standard method books, consultation with professional musicians, and feedback from methods instructors. Sequences were then formatted to introduce the fundamentals of each group in an effective manner for collective instruction. This holistic approach instills solid foundational musical technique and understanding before progressing to more advanced sound production.

Research and presentations: Student scholars day presenter of senior project. Beginning this summer, Angela will be researching the differences between music program offerings in public and private schools with Dr. Kevin Tutt.

Leadership Activities: National Association for Music Education (NAfME) State Collegiate Conference Coordinator, President of NAfME Collegiate Chapters in the State of Michigan, Michigan Music Education Association (MMEA) Board Representative. Former President and Vice President of GVSU Collegiate Chapter of NAfME. Band staff student worker, Symphonic Wind Ensemble librarian, Music Major Orientation leader, Special Tasks and Events Manager for the Department of Music and Dance, and Alex Aninos Music Education Memorial Scholarship Founder.

Activities/Awards: College of Liberal Arts and Sciences Glenn A. Niemeyer Student Award Nominee, Fulbright English Teaching Assistantship Semifinalist, Music Department and APEF Grant recipient for the NAfME Music Research and Teacher Education National Conference in Atlanta, Georgia, Music Department Grant for the Midwest Music Clinic in Chicago, Illinois, Edith Blodgett Piano Scholarship, and Accompanist of the Year for Music in the Parks, Illinois. Participated in the Symphonic Wind Ensemble, Chamber Ensemble, New Music Ensemble, and Percussion Ensemble. Front Ensemble Instructor for the Jenison High School Marching Band.

Internship/Practicum Experience: Teacher assisted at the Grandville Elementary Schools and student taught at Greenville High School and Middle School.

Greatest Accomplishment while at Grand Valley: Performing two rigorous piano recitals.

Plans After Graduation: Following graduation, Angela will continue teaching and performing until she secures a job teaching high school band.

Skylar Schoen, Exercise Science Clinical Emphasis



Senior Project title: Comparison of three dimensional ankle and foot kinematics between Leardini and Oxford multi-segment foot models in the elderly population

Summary of senior project: Using the 8 Vicon infrared cameras in the GVSU Biomechanic Motor and Performance Laboratory, we compared three dimensional kinematic ankle/foot variables generated by two commonly used multi-segment foot models on a healthy, elderly sample. Statistical analysis proved there to be significant differences between the two models, an implication that biomechanists, clinicians, and other researchers may wish to consider when analyzing ankle/foot variables in pathologic, elite, and healthy samples.

Research and presentations: The effects of Gatorade on blood sugar and power output during anaerobic Wingate sprint test (Spring 2016)

Leadership Activities: 4 year member of Pre-PT Club, 3 year pool supervisor and lifeguard trainer at Harold Hall Quarry Beach, 2 year LAKER Academic Success Center Tutor, 4 year Athletes Who Care panelist/mentor.

Activities/Awards: GVSU Women's Track and Field- Pole Vaulter, National Collegiate Athletic Association Division II Second Team All-American Indoor Track and Field 2016, U.S Track & Field and Cross Country Coaches Association All-Academic Individual NCAA Division II Women's Track & Field (2014,2015,2016), Great Lakes Intercollegiate All-Academic Excellence Team Indoor and Outdoor Women's Track and Field (2014,2015,2016), GVSU Track and Field Mental Attitude Award (2014,2015).

Internship/Practicum experience: Intern in the GVSU Biomechanics and Motor Performance Laboratory, Clinical Assistant at Metro Health Hospital- Physical Medicine Floor

Greatest accomplishment while at Grand Valley: Surviving fall semester junior year during which I was taking physics, biological chemistry, and upper level movement classes, while also conditioning for track and tutoring 11 student athletes. I'd like to thank the Mary Idema Pew Library for being my second home, and the faithful friends, family, and teammates that pushed me through nights of the citric acid cycle and days spent running up hills.

Plans after graduation: I will be attending a Doctorate of Physical Therapy program in Florida.

Allyson Schomer, Anthropology, Minor in Psychology



Senior Project title: "Transmission of Identity Through the Camera: Photographers' Perspective's on Photography and the Self."

Summary of senior project: I used anthropological research methods such as interviewing and participant observation to better understand the relationship between photographers and their cameras.

Activities/Awards: During my time at Grand Valley, I've been an editor for the Grand Valley Journal of History, held the position of public relations officer for the student organization Packing Hope, and participated in the Anthropology Club.

Study Abroad experience: During the Fall 2015 semester, I studied abroad in Thiruvananthapuram,

Kerala, India at Mar Ivanios College. I travelled all throughout Kerala and spent time in New Delhi, Agra, Jaipur, Tamil Nadu, and other cities and states. I lived at the Unity House, a boarding home for young girls, and was lucky to experience a wide variety of cultures, religions, people, and places.

Internship/Practicum experience: During the Spring/Summer 2016 semester, I interned at the Fulton Street Farmers Market with two other anthropology students. During that time, I learned about the market, local food systems, community engagement, and conducted a total of three Rapid Market Assessments in both Grand Rapids and Ann Arbor.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley has been finding ways to go outside my comfort zone. I am not just proud of one thing, I am proud of the opportunities I have taken by studying abroad, interning, and participating in clubs and organizations.

Plans after graduation: I plan to spend a year honing my anthropological skills, then I plan to move on to graduate school in the Fall of 2018.

Lukas Schroeder, Music Performance and Public & Nonprofit Administration



Senior Project title: "Behold this Compost: Music and the Words of Walt Whitman"

Summary of senior project: Lukas and Niko Schroeder present selected poems from Walt Whitman's *Leaves of Grass* accompanied by prerecorded and live instruments. They explore the universal themes inherent to Whitman's writing.

Research and presentations: I assisted with the Michigan Music Conference presentation "Chamber Music for Novice Players" by Kevin Tutt and the GVSU Symphonic Wind Ensemble.

Leadership Activities: I was principal tubist in GVSU Wind Ensemble, Orchestra and New Music Ensemble, conductor of the GVSU Tuba Herd, manager of several chamber ensembles, cofounder of the GVSU Music Forum, and a member of ΦΚΦ, ΟΔΚ, and ΠΑΑ Honor Societies.

Activities/Awards: I received the GVSU Presidential Scholar Award of Distinction, Community Leadership Award, Alexander Calder Honors Scholarship, Thomas M. Seykora

Award for Outstanding Contribution, Academic Excellence Award in Public and Nonprofit Administration, Academic Excellence Award in Music, and the Career Center Internship Award.

Study Abroad experience: I went to Germany and the Netherlands for two weeks with the Calvin College Wind Ensemble.

Internship/Practicum experience: I interned at ArtPrize, the Grand Rapids Symphony, the West Michigan Center for Arts and Technology, and Center for Inquiry—Michigan.

Greatest accomplishment while at Grand Valley: I ate nine hotdogs in one sitting.

Plans after graduation: I will work in nonprofit development in Grand Rapids.

Nikolaus Schroeder, Music



Senior Project title: Behold this compost! Music and the Words of Walt Whitman

Summary of senior project: Lukas Schroeder and I composed, recorded, and mixed electronic music to accompany six poems from Walt Whitman's *Leaves of Grass*, which we read and performed live.

Research and presentations: I was awarded a GVSU Summer Scholars Grant to study the music of William Henry Pommer under faculty advisor Dr. Lisa Feurzeig. We presented our findings in Chicago, Hermann (Missouri), and Florianópolis (Brazil). The operetta that I transcribed will be performed next season in Missouri. My senior project for my Bachelor of Arts degree was a four-song collection that I composed, arranged, rehearsed, performed, and recorded. It was released on Bandcamp.

Leadership Activities: I am currently the GVSU New Music Ensemble's student manager, GVSU Music Forum's co-founder, co-founder and general manager of the Lake Effects (an indie-pop band), co-manager of the Bassment Boys Tuba Quartet, and principal euphonium of the GVSU Symphonic Wind Ensemble. For two years I was the president of the GVSU Varsity Men's Glee Club and the outreach coordinator for the Brass Action Quintet.

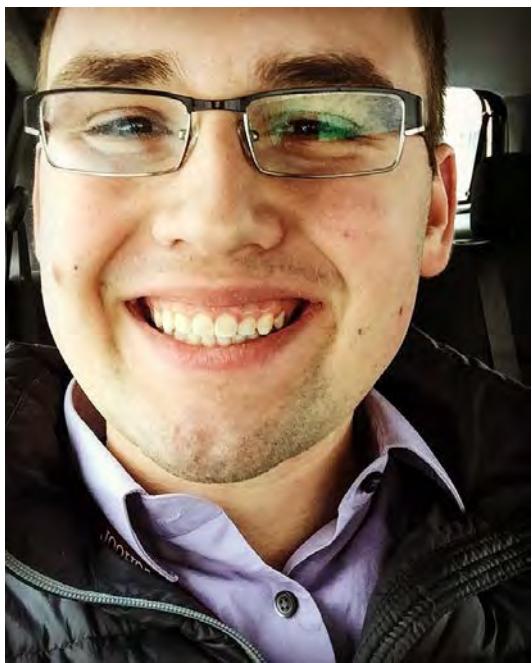
Activities/Awards: I was awarded the Glenn A. Niemeyer and Thomas M. Seykora Awards, and was named the 2015/2016 GVSU Composer of the Year. I won the GVSU Concerto Competition with Julia Bovee, and won first place and audience favorite in the 2016 and 2017 GVSU Student Composition Competitions.

Internship/Practicum experience: I was the Development and Events Intern at the West Michigan Environmental Action Council, the Research and Outreach Coordinator for Adiri Music, and a general intern for Artworks in Big Rapids.

Greatest accomplishment while at Grand Valley: *loway*, by the Lake Effects

Plans after graduation: I will apply to graduate programs in music composition.

Nick Schweitzer, Mathematics & Secondary Education



Senior Project title: The Disproportional Experiences of Middle School Students in Studying

Ratio and Proportions Based on Their Textbooks

Summary of senior project: With the swift, almost nationwide adoption of the Common Core

State Standards for Mathematics (CCSSM), there was a rush of materials created that were claiming to be aligned to the new standards. Using an established coding framework, a few, supposedly aligned middle grades textbooks were examined on their ratio and proportions chapters. It was concluded the materials were not in total alignment to both the CCSSM content standards and the Standards for Mathematical Practice, demonstrating the need to critically examine all curriculum materials so that students can benefit from the best education possible.

Research and presentations: Presented the results of my senior project at Student Scholars Day in April 2017

Leadership Activities: Young Life @ GVSU Leader, Resident Assistant, National Residence; Hall Honorary, Pi Mu Epsilon National Mathematics Honor Society, Phi Kappa Phi National; Honors Society

Activities/Awards: Campus Ministry @ GVSU, The Barn, Outstanding Senior Award in the Department of Mathematics, Outstanding Sophomore Award in the Department of Mathematics, Mathematics and Community Service Award

Internship/Practicum experience: Student Teaching Algebra II and Pre-calculus at Wellspring, Preparatory High School and Teacher Assisting 8th grade mathematics at Grandville Middle School

Greatest accomplishment while at Grand Valley: While student teaching, a student nominated me for "Teacher of the Month." In a negatively stereotyped subject like mathematics, to hear a student say that I am teaching math in a new, personalized way was beneficial for them was absolutely inspiring to hear. As a new teacher, I know that I have many areas to grow; however, hearing feedback like this or "But Mr. Schweitzer, *why do you have to leave?*" from my students has affirmed me that I am supposed to be a teacher and makes me excited to have a classroom of my own in the fall and for many years to come.

Plans after graduation: Middle/High School Mathematics Teacher

Jackie Schymanski, Chemistry with a Professional emphasis, Minor in Mathematics



Senior Project title: Vibrational Spectroscopy of Carbonmonoxy Myoglobin

Summary of senior project: I investigated the vibrational frequency of carbon monoxide bound to a myoglobin mutant, in which a polar histidine was replaced with a nonpolar valine residue. My goal was to see how the behavior of the vibrational frequencies was altered due to the nonpolar residue. I calculated vibrational frequencies with a pared down environment of only four amino acid residues, and fit this data to a linear combination of geometric parameters. I generated an absorption spectrum from this data, which showed a peak at 1976 cm^{-1} and a full width half maximum of approximately 2 cm^{-1} .

Leadership Activities: I was elected as the Human Resources representative of the Grand Valley Dance Troupe executive board from 2015-2016. For the following school year, I was elected to be Co-President.

Activities/Awards: I became involved with Grand Valley Dance Troupe my freshman year of college, and remained in the organization for eight consecutive semesters. For five semesters, I was selected to be a choreographer for Dance Troupe.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley was being elected as a Co-President of Dance Troupe.

Plans after graduation: After graduation, I plan to pursue a job in a lab doing biochemistry research. Further, I plan to take 1 or 2 years off before attending graduate school to obtain a Ph.D. in Chemistry.

Eric Sheffield, Biomedical Sciences



Senior Project title: Variation in density of human cranial dura mater using computerized tomography

Summary of senior project: This project is an expansion from my student summer scholar project that focused on differences in dural density between sex groups.

Research and presentations: With the help of Dr. Chris Reed, I was awarded a Student Summer Scholar (S3) Grant. This project focused on analyzing differences in density of the dura mater at different parts of the brain.

Leadership Activities: President of Premed Club, V.P. of Habitat for Humanity Club

Activities/Awards: BMS Award of Distinction Recipient

Internship/Practicum experience: The summer between my Sophomore and Junior years I worked as a CNA in an assisted living home, primarily in the dementia unit. In addition, that summer I was a part of the Rural Premedical Internship Program through MSU College of Human Medicine. From my Sophomore through Senior years I worked as a home health aide.

Greatest accomplishment while at Grand Valley: Achieving my dream of being accepted to medical school

Plans after graduation: Medical school at Michigan State University College of Human Medicine

Sydney Shewmaker, Secondary Education/English



Senior Project title: Teaching Shakespeare: A Resource for the Classroom

Summary of senior project: I made a website on Shakespeare for teachers. This website is for any teacher looking to teach a William Shakespeare play. For now, I have resources for *A Midsummer Night's Dream*, *Hamlet*, and *1 Henry IV*. Later on, I will be adding resources for many more of Shakespeare's plays. This website is aimed at those teachers who find Shakespeare intimidating, or scary. I give brief summaries of the plays and the characters. The resources in these plays are meant to help teachers through their teaching of the plays. There are activities (with handouts), productions that teachers can use, and an introduction to the basic life of Shakespeare. All of this can be used as a quick guide to help teachers successfully teach Shakespeare to their students.

Activities/Awards: Deans List, Sigma Tau Delta Honors English Society Member

Study Abroad experience: Studied British Literature in England, Summer 2016

Internship/Practicum experience: Teacher Assisting: Innovation Central High School, Grand Rapids, 9th Grade. Student Teacher: Washington Parks Academy, Detroit, 6-8th Grades

Greatest accomplishment while at Grand Valley: Graduating

Plans after graduation: I hope to continue teaching in an urban setting. I would like to continue looking at how culturally relevant pedagogy is important for student success, especially in the urban environments.

Matthew Sinclair, Biology



Senior Project title: Consanguinity Negatively Impacts Scholastic Success

Summary of senior project: Analyzed data gathered from Iran on inbreeding coefficients and relating it to the highest level of education achieved.

Research and presentations: Consanguinity and Strabismus

Internship/Practicum experience: Student Intern at the Dorothy A. Johnson Center for Philanthropy, starting as a Biostatistics Research Intern at MPI Research this summer.

Greatest accomplishment while at Grand Valley: Keeping my grades up and getting into the Biostatistics Master's Program.

Plans after graduation: Work at MPI Research while attending the Biostatistics Master's Program here at GVSU.

Cassandra Skinner, Sociology, Minors in Psychology & Applied Statistics



Senior Project title: Solving Mercy Health's "Inebriate Problem": Laying the Foundation for Innovation

Summary of senior project: Mercy Health spends about \$2 million each year treating ER Super Users, and ER Super Users take up ER funding, beds, and time which could be spent helping other patients in need of emergency care. Therefore, I conducted secondary research and constructed a stakeholder map around this issue to create an action plan using Design Thinking for innovating around this issue. I also wrote a grant proposal to request funding for this action plan to be implemented in the coming year.

Research and presentations: I presented a poster of a literature review at SSD in 2015 called "Exploring how Snapchat is Shaping Relationships, Identity, and Communication: A Review of Current Research and Theoretical Applications." I also wrote a literature review around the definition of alternative education and its significance specifically to the Grand Rapids area. Finally, I served as a statistical consultant to a project in the Seidman College of Business around business students' perceptions of Team-Based Learning practices.

Leadership Activities: Cook Leadership Academy Fellow 2017

Activities/Awards: Excellence in Sociology Award 2017

Study Abroad experience: I studied abroad in Rome, Italy over the summer of 2015.

Internship/Practicum experience: I worked as a research assistant in the CRI at the Johnson Center for Philanthropy throughout my junior year. I currently work as a program evaluation intern for Groundswell, a program with the GVSU College of Education which aims to encourage place-based education in Grand Rapids Public Schools.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley is one of personal development: I have become comfortable with ambiguity and the unknown. As I graduate, I have come to terms with the fact that I may not always have a clear goal or path in life, but that does not mean I can't still be driven and motivated to succeed in whatever I choose to do.

Plans after graduation: After graduation, I intend to become more involved in the Social Innovation space as a researcher and a designer around social issues. Before applying to graduate school, I hope to open my own research firm which can help social entrepreneurs and innovators create products and services which are stronger, more sustainable, and make more positive social impacts.

Kali Smolen, Cell and Molecular Biology



Senior Project title: Completion of the X-ray crystal structures of *Acinetobacter*-derived cephalosporinase (ADC-7) in complex with novel inhibitors

Summary of senior project: My honors project entails the overall validation of the x-ray crystal structures of ADC-7 in complex with various boronic acid transition state inhibitors, as well as depositing these structures into the worldwide open-access Protein Data Bank.

Research and presentations: I have

researched in the lab of Dr. Brad Wallar in the GVSU Biochemistry Department since my freshman year. Our lab works on characterizing novel inhibitors to combat antibiotic resistant infections. I have presented this research at various conferences including the 2015 Interscience Conference on Antimicrobial Agents and Chemotherapy and the 2015 Midwest American Physician Scientist Association Regional Meeting. I also participated in the Dartmouth MD/PhD Undergraduate Summer Fellowship last summer where I worked in the lab of Dr. Arminja Kettenbach investigating protein phosphatases and their roles in mitotic cell division and cancer signaling.

Leadership Activities: I have been a Cook Leadership Academy Fellow and the president of the Pre-MD/PhD Club and the GVSU Beekeepers for the past two years.

Activities/Awards: In addition to the organizations above, I am a Chemistry tutor, a Spanish interpreter at Health Intervention Services, and an Alternative Breaks member. I have been a recipient of the "I am Grand Valley" leadership award for the past three years. I have also been recognized as the Outstanding Cell and Molecular Biology senior this year.

Internship/Practicum experience: Dartmouth Fellowship (see Research)

Greatest accomplishment while at Grand Valley: The lasting connections that I have made with other students and faculty on and off campus is by far my greatest accomplishment while at GVSU. Without many of these people, I would not be where I am today. These connections have given me many opportunities and experiences. But more importantly, they have helped me develop passion, hope, curiosity, confidence, and knowledge that I will maintain for the rest of my life.

Plans after graduation: I will be pursuing an MD/PhD dual degree at the Dartmouth Geisel School of Medicine in Hanover, NH.

Johanna Squires, Sociology, Biomedical Sciences, Minors in Chemistry and English



Senior Project title: Effect of Erythromycin on Gut Motility in Porcine Intestine

Summary of senior project: Studies have shown that low-dose amounts of Erythromycin can have prokinetic side effects on the GI tract. As such, the efficacy of Erythromycin as a prokinetic agent can be compared to Metoclopramide at clinical dosages. We found that Erythromycin induces a greater force of contraction than Metoclopramide at the 200uL and 290uL dosages.

Research and presentations: For my capstone I decided to focus on the application of platelet-rich plasma therapy (PRP) on the recovery process of anterior cruciate ligament (ACL) injuries. PRP is an exciting new approach in the field of sports medicine and orthopedics because it has the potential to simulate biological growth.

Leadership Activities: During my time at GV, I have served as a lab assistant in both a physiology lab with Dr. Sylvester and microbiology lab with Dr. Nieuwkoop. By actively ensuring the comprehension of the material for the students in and out of

class, I was able to polish my tutoring skills and my own understanding of the subjects.

Activities/Awards: I will be graduating as a BMS Graduate with Distinction at the end of this month.

Study Abroad experience: During the Fall 2015 semester, I studied abroad at King's College London in their highly selective Health & Society Program.

Greatest accomplishment while at Grand Valley: Having the opportunity to perform research with Dr. Sylvester and my fellow research partners for the past three years.

Plans after graduation: During my upcoming gap year(s) I plan to pursue getting my TEFL certification so that I can teach English in South Korea for a school year. Upon my return, I will attend medical school (allopathic or osteopathic) where I will pursue either sports medicine or orthopedics.

Megan Steenwyk, Public & Nonprofit Administration, Emphasis in Community Health



Senior Project title: Resolutions for Health Literacy Advocacy in the Great Lakes Chapter of the Society for Public Health Education

Summary of senior project: For my Senior Project, I worked with members of the regional chapter of the Society for Public Health Education, supervised by a graduate professor of Public Health at Grand Valley. We produced resolutions on the topic of health literacy, focusing on this issue at national and state level perspectives.

Research and presentations: For my Junior Seminar, I enrolled in Design Thinking to Meet Real World Needs. During this course, my classmates and I conducted research on the issue of homelessness in Grand Rapids – focusing on the Dickinson neighborhood and Seeds of Promise, a local nonprofit organization. We were able to publish our finished design brief on ScholarWorks@GVSU. Since this class was a community-based learning opportunity, I was also able to participate in the colloquium, Evaluating Community Based Learning: What is Success?, as the student presenter in March of this year.

Leadership Activities: While at Grand Valley, I served on the Leadership Team of Campus Ministry, as well as the executive board for the collegiate chapter of the Association of Fundraising Professionals. I was the founding Vice-President of AFP and also served as VP of Recruitment/Membership.

Study Abroad/Internship experience: During the summer following my junior year, I was able to take advantage of the newly formed EUSA Internship Program in Prague, Czech Republic. This opportunity allowed me to obtain internship credit for my major, as well as experience living abroad. I interned at a nonprofit school serving families of children with disabilities for eight weeks.

Greatest accomplishment while at Grand Valley: I believe that my greatest accomplishment at Grand Valley was contributing to the university-wide civic engagement mission by working at the Office for Community Engagement. As Communications Assistant, I was able to produce a newsletter for faculty and community partners, as well as help Grand Valley administrators identify marketing approaches for civic engagement.

Plans after graduation: My plans after graduation include taking a year off before pursuing graduate school, spending time with my family, and traveling as much as possible. I am also pursuing career opportunities in the nonprofit sector of Grand Rapids. I would like to work for an arts, health, or family-focused organization.

Jennevie Stephenson, Animal Biology



Senior Project Title: A Mash-Up – A Little Big History of the Potato

Summary of Senior Project: Looking at a seemingly innocuous and familiar food through a broad historical lens allows for appreciation about how the evolution, domestication, and agricultural cultivation of such plants has shaped human culture and the biological world across very long time scales: food production and security is a major factor in social relationships, political conflicts/upheaval, and economic inequality – as well as our attitudes toward the environment and the manipulation of nature.

Research and presentations: I have written research papers on horse, dog, and human evolution; democracy and political theory; aspects of the Holocaust; and the possible evolutionary impacts of trophy hunting on large mammal species, like big cats and deer.

Activities/Awards: I worked at the Grand Valley Sustainable Agriculture Project in Fall 2016. I was a Phi Kappa Phi Freshman Honoree in Fall 2013 and made the Dean's List 4 times.

Internship/Practicum experience: I interned at Eighth Day Farm, an organic urban farm in Holland, MI, in the summer of 2016.

Greatest Accomplishment while at Grand Valley: I am incredibly grateful for the relationships I've made with friends, faculty, and staff throughout Grand Valley, especially Professor Craig Benjamin, the members of my freshman year Big History sequence, and all the wonderful people at the Sustainable Agriculture Project.

Plans after graduation: I will be working at the YMCA Camp in Middleville, Michigan, as a member of the horse program team.

Courtney Stewart, Integrated Science



Senior Project title: Creating a K-12 STEM Pipeline to Increase the Representation of Minorities Within STEM Fields

Summary of senior project: The absence of a K-12 STEM pipeline, including abundant field experiences, certified STEM educators, and mentorship opportunities, creates an imbalance in the number of Black and Latino students pursuing and obtaining STEM degrees. Therefore, the central focus of my senior project was to identify how the creation of a STEM pipeline, beginning in elementary school, can enhance the representation of people of color in STEM fields.

Leadership Activities: During my years at Grand Valley, I served on multiple executive boards. I was the Vice-President of the T.R.U.T.H Bible Study, the Victorious Women of Virtue Outreach Coordinator, The Righteous Movement Director of Social Activities and Vice-President, Rubies Co-Founder and Co-Creator, and The Detroit Network of Future Leaders Program Coordinator.

Activities/Awards: I have been on the Dean's list for five consecutive semesters and a three-time award recipient of the I Am Grand Valley Award.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley was beginning to walk in accordance with God's will for my life.

Plans after graduation: Following graduation, I will be pursuing a master's degree from the University of Michigan, Ann Arbor in Educational Studies. I plan to incite a paradigm shift in the world of Education through teaching, consulting, and influencing policies that support the success of minority students in urban communities.

Jody-Leigh Steyn, Biology & Pre-Medicine



Senior Project Title: Effect of Erythromycin on Gut Motility in Porcine Intestine

Summary of Senior Project: Metoclopramide is a prokinetic agent prescribed for gastroparesis. Erythromycin has demonstrated prokinetic effects at low doses and thus was evaluated for clinical efficiency against Metoclopramide at similar dosages. Segments of porcine intestines were mounted in organ baths with serial doses of potassium chloride, Erythromycin and Metoclopramide independently added. The difference in contractile strength between the drugs were recorded. Results demonstrate that Erythromycin induces stronger contraction forces than Metoclopramide and may be more effective as a prokinetic agent in increasing gastrointestinal mobility.

Research: Additionally, Jody has also researched the effects of hyperbaric oxygen therapy on porcine intestines.

Leadership Activities: Jody was a freshman resident assistant, transitions leader for two years and an alternative breaks site leader.

Activities/Awards: Jody is a member of the African Student Council, Pre-Med club, Colleges Against Cancer and Alternative Breaks.

Study Abroad Experience: Jody was fortunate to spend two weeks in Nicaragua working in two different medical clinics.

Greatest Accomplishment while at Grand Valley: Jody became a U.S. citizen my sophomore year.

Plans after graduation: Jody will be attending Michigan State's M.D. school in the fall with hopes of becoming a physician.

Ashley Tallarico, Athletic Training



Senior Project title: Instrument Assisted Soft Tissue Mobilization and It's Effects of Decreasing Delayed Onset Muscle Soreness

Summary of senior project: This research project involves determining if a therapeutic intervention is beneficial at decreasing the amount of soreness an individual feels after fatiguing their muscles.

Activities/Awards: In April of 2016, I was awarded the Doug and Linda Woods Athletic Training Scholarship. I have also been awarded the "I Am Grand Valley" Award.

Internship/Practicum experience: I will be

completing my time at Grand Valley by participating in an athletic training internship in the local Grand Rapids area.

Greatest accomplishment while at Grand Valley: My greatest accomplishments while at Grand Valley was being accepted into the competitive athletic training program. This program has truly pushed me to my limits, and I am so proud of myself for completing this journey. I look forward to taking the BOC exam and becoming a certified athletic trainer!

Plans after graduation: I plan on attending Western Michigan University to obtain my Masters in Athletic Training. While at Western Michigan University I will be a graduate assistant athletic trainer at a high school in the Kalamazoo area.

Stephanie Tanis, Biomedical Sciences & German



Senior Project Title: "Germany's role in the Migration Crisis"

Summary of Senior Project: Her senior project, completed Winter 2017, allowed her to dive deeper and take some time to understand the workings of the European Union and Germany's position in the EU. While completing her senior project, she also had the opportunity to attend the Midwest Model EU simulation in Bloomington, Indiana.

Research and presentations: During the past two

years, Ms. Tanis has participated in two different research opportunities in the Chemistry department at GVSU. She spent three consecutive semesters with Dr. Deborah Herrington working on a Target Inquiry project funded through a generous NSF grant. In March 2016, she had the opportunity to travel with her research team to San Diego, CA to present at the national ACS Meeting and was accepted to the 2017 NARST National Meeting in April 2017. She also spent her junior year working on a Lab Development project with Dr. Stephanie Schaertel for the physical chemistry course at GVSU where she studied the kinetics of caffeine interaction using NMR and gained experience in Raman Spectroscopy.

To complement her research experience, Stephanie is an alumna of the 2016 "Extreme Crystals Weekend Workshop" hosted by the University of Nevada Las Vegas (UNLV). This fellowship, funded by the National Nuclear Security Administration as part of the Academic Alliance Program, allowed her to gain hands on experience with Single Crystal Diffraction, X-ray crystallography, Superconductivity, Raman Spectroscopy and Diamond Anvil Cells during an all-expenses paid trip to UNLV.

Activities/Awards: Outside of academics, Stephanie is very involved in University activities. She has spent the past four semesters as a member of the GVSU Club Sailing team and currently holds a leadership position. She is also part of the German Club, German National Honors Society *Delta Phi Alpha*, and Alternative Breaks club, which allows her to spend her breaks volunteering across the country. Other activities include her virtual volunteer position with CAMAAY, a NGO based in Cameroon that works to develop sustainable school garden programs, and her volunteer position at the Cook Arts Center in Grand Rapids, where she tutored local students.

Internship experience: Stephanie also recently completed an internship with the Kent County Health Department (KCHD) in Fall 2016. There she worked in the Environmental Laboratory and gained experience of how a government laboratory operates. During her time at KCHD, she worked alongside permanent staff and prepared water samples to be tested while also developing a "Well Water Testing" toolkit for Kent County residents, which she presented to her colleagues at Student Research Day in December.

Study Abroad Experience: Throughout the last four years she has represented GVSU during her academic travels abroad. In Fall 2014 she spent a semester studying at Kingston University in London. During Summer 2015 she traveled to Weimar, Germany to complete intensive German classes. She returned to Berlin, Germany in Summer 2016 and most recently attended a conference in Istanbul, Turkey.

Greatest Accomplishment while at Grand Valley: Being able to positively represent GVSU while abroad has been her most rewarding and greatest accomplishments at GVSU. Stephanie truly is a Laker for a Lifetime!

Plans after graduation: Stephanie looks forward to utilizing both her majors while attending graduate school for Biometrics in Germany beginning Fall 2017.

Adam Terwilliger, Computer Science, Mathematics, & Statistics



Senior Project title: Deep Learning and Particle Physics

Summary of senior project: The goal of the project is to better understand the universe by utilizing deep learning to characterize neutrino interactions.

Research and presentations: During his first two years, Adam worked with Dr. Lord in computational inorganic chemistry. Their work was published in a top-tier journal. Adam also worked with Dr. Wolfe in the DEN on a multitude of projects ranging from high-performance computing in biology to content-aware style transfer to simulation and modeling in epidemiology. Adam is a co-author on papers submitted to conferences in these respective fields.

Leadership Activities: Adam has spent the last three years working with the Johnson Center for Philanthropy to help improve the lives for those living in Kent County through statistical programming.

Awards: Adam received the Academic Excellence Award in Computer Science and was nominated as an Outstanding Graduating Senior in Mathematics.

Internship experience: Adam had summer experiences at the SAS Institute for software development, Steelcase Inc. for text analytics, and Oak Ridge National Laboratory

(ORNL) for deep learning. Adam will be presenting his work from his fellowship at ORNL at a top ten conference in machine learning this summer.

Greatest accomplishment while at Grand Valley: Learning how to fail. After literally failing courses in his major, he learned how to pick himself up, come back even stronger and never give up on himself.

Plans after graduation: Adam will be pursuing his PhD in Computer Science at Michigan State University focusing on deep learning in computer vision.

Christen Thompson, Allied Health Sciences with an emphasis in Speech-Language Pathology



Senior Project title: *Comparison of Peripheral Vowel Structures Across Age, Gender, and Location*

Summary of senior project: While attending Grand Valley State University, I was able to work closely with professionals in my field and was provided with multiple research opportunities. The greatest of these opportunities was being able to work with Dr. Courtney Karasinski for my senior honors project. My project aimed to compare the differences in how people who live in different parts of Michigan produce words. In order to conduct the study, audio recordings of speech were collected from participants in Grand Rapids, Michigan, and Lapeer, Michigan between the age of 18 and 79. Data was then extracted to determine where the peripheral vowels were produced in the oral cavity of each participant. There were significant differences for the location in which males produced vowels in their oral cavity as compared to females. Results from this study are to be presented at conferences around the country.

Leadership Activities: During my time at Grand Valley State University, I was a member of the Frederik Meijer Honors College, held the office of vice president for the GVSU chapter of the National Student Speech Language Hearing Association, and participated as a Transitions Leader who welcomed freshman students to our campus.

Greatest accomplishment while at Grand Valley: During my time at GVSU, my most rewarding experience as a speech-language pathology student was having the opportunity to travel to Mexico and provide speech and language therapy to children and families who do not have access to it. Although the mission trip was through an outside non-profit organization, several of my fellow Lakers and I traveled to two cities in Mexico and provided services to an orphanage as well as families who do not have the resources necessary to help improve their child's communication abilities. Working side by side with my fellow students and professionals in my field to help these children was an experience I will never forget and will always be grateful for.

Plans after graduation: After graduation, I will be attending James Madison University in Harrisonburg, Virginia to earn a Master of Science degree in speech-language pathology. My goal is to become a medical-based speech-language pathologist who assists people with communication and swallowing disorders to improve their quality of life.

Samantha Tonks, Biomedical Science



Senior Project title: Single Mothers' Rights in South Korea

Summary of senior project: I was privileged to complete my Honors Senior Project while studying abroad in Seoul, South Korea. It was an auto-ethnographic paper, which included documentary analysis, interviews with adult adoptees, and my family's story of my mother's adoption. I was able to meet my Korean grandmother while I was in Korea which added a personal angle to my paper concerning Korean cultural views of single mothers (widows, divorcees, teenagers, etc.) and choices made about their children. It was fascinating to be immersed in Korean culture while researching laws that influence adoption, single-parenting, and learning about activism led by adoptees.

Leadership Activities: During my time at Grand Valley, I was deeply involved in InterVarsity Christian Fellowship. I joined the leadership team my second semester of college, then led the international bible study my sophomore year. During my junior year I continued to mentor the new leaders of the international bible study and remained an active member of the club.

Activities/Awards: In addition to InterVarsity, I was a member of the Pre-Physical Therapy club for my entire undergraduate career. I was also involved with the Asian Student Union club and Kids in Motion during my junior year of college. Asian Student Union exposed me to a variety of Asian cultures before my study abroad semester, fall 2016, and Kids in Motion allowed me to interact with underprivileged children in an after school program.

Study Abroad experience: Seoul, South Korea

Greatest accomplishment while at Grand Valley: My Senior Project is something I consider to be my greatest accomplishment at Grand Valley. In addition to a difficult pre-medical major, I completed a 40+ page paper that addressed an international issue that affects many Americans. America has many Asian adoptees who are facing a variety of legislative complications, as well as many citizens who wish to adopt internationally. In conjunction with this project, I feel successful in receiving the Graduate of Distinction Award for the BMS major. It symbolizes the efforts I have placed into my studies to apply to graduate school and become a competent medical professional.

Plans after graduation: In the fall 2017 semester, I will attend graduate school to become a Doctor of Physical Therapy. At this time, I have accepted a position at Grand Valley to continue my studies in their class of 2020. I am excited for this next phase of life and school. I look forward to the road ahead so I may pursue my dreams of becoming a physical therapist.

Shelby Toren, Psychology, Minors in Biology & Spanish



Senior Project title: "The Importance of Socialization Among Elderly Populations."

Summary of senior project: I reviewed research on the importance of maintaining a social support network as one ages, studied the specific challenges that older adults face in maintaining this network, and suggested improvements that could be made in the Grand Rapids area to help older adults remain social. I presented this project at the Art and Science of Aging conference in February.

Plans after graduation: After graduation, I plan to continue working as a Patient Advocate at Hulst Jepsen Physical Therapy, although in the future I would love a job that allows me to work with animals.

Hannah Tripp, Voice Performance



Senior Project title: The Storytellers' Method: 6 Settings of Paul Verlaine's *Mandoline*

Summary of senior project: A lecture-recital presenting six settings of one poem by six different composers

Research and presentations: In addition to this year's lecture recital, I presented solo recitals in my third and fourth years of college.

Leadership Activities: Former president of Grand Valley's Mu Alpha chapter of Sigma Alpha Iota

Activities/Awards: Performed with the University Arts Chorale and Grand Valley Opera Theatre. Member of Mu Alpha chapter of Sigma Alpha Iota at GVSU. Voice teacher at Ada Conservatory of Music.

Study Abroad experience: Summer semester abroad in Vienna, studying music

Greatest accomplishment while at Grand Valley: Sustaining an F#, and working within my field before graduation!

Plans after graduation: Continue teaching private voice lessons and pursue a Master's degree in voice performance or pedagogy.

Savannah Vance, Allied Health Sciences with an emphasis in Speech-Language Pathology



Senior Project title: *Music as an Architect for Speech and Language*

Summary of senior project: For my senior project titled I conducted a systematic review to examine the available evidence supporting the effects of music on speech and language performance for children, adolescents, and adults with communication disorders. Results of the study ultimately suggested potential positive effects of the use of music in speech and language therapy. However, more evidence-based research needs to be conducted in order to support its effectiveness and use in clinical speech and language therapy for individuals with communication disorders.

Research and presentations: I have recently presented at Student Scholars Day with a few of my peers. We conducted research on the effectiveness of stuttering intervention and quality of life.

Leadership Activities: I have been a leader on campus as a Student Manager with Campus Dining for three years.

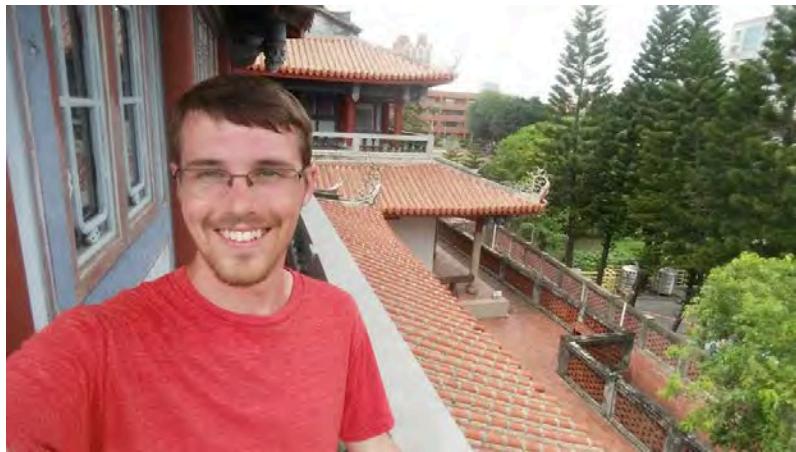
Activities/Awards: I volunteer every week at the Humane Society of West Michigan and Mary Free Bed Rehabilitation Hospital. I have been recognized on the Dean's List for 5 consecutive semesters.

Study Abroad experience: I volunteered abroad Valparaiso, Chile over the summer of 2016. I volunteered daily at the Center for Malnourished Infants where I provided basic care for infants with developmental disorder, malnutrition, etc. I even had time to travel the entire country while I was there which opened my eyes to the beauty of the natural world of Chile and facilitated my dreams of travelling in the future. It was a very rewarding experience that I will treasure for a lifetime.

Greatest accomplishment while at Grand Valley: My greatest accomplishment while at Grand Valley was meeting tons of people that have helped me grow into the person I am today. Without the education and environment that Grand Valley has provided for me, I would have never met such amazing people and professors. I have been given such wonderful opportunities to grow as a person and a professional here at Grand Valley.

Plans after graduation: My plans after graduation include interning at the Children's Center for Growth and Development in Hartland, Michigan for the summer and attend Michigan State University in the fall to receive my Master's Degree in speech-language pathology.

Cole VanderVeen, Chinese Studies



Senior Project title: Blogging in Retrospect: An Argument for the Use of Blogs in a Study Abroad Context

Summary of senior project: This project serves as a case study advocating for the use of blogs during a study abroad experience. By keeping a daily blog during his semester in Taiwan, Cole was able to speak to the numerous benefits of the practice, such as designating time each day to reflect on

experiences, keeping a written record that can be referred to in the future, and reflecting upon experiences that contributed to his growth as an intercultural individual. He has added retrospective commentary to his original blogs posts a year after they were originally written, with the final result of the project taking the form of a 300-page book for use by the Padnos International Center.

Research and presentations: Cole spent his Chinese Studies capstone researching the trajectory of US-China relations under the Trump administration, which culminated in a written thesis and a 25-minute presentation at Student Scholars' Day.

Leadership Activities: Cole served as a previous vice president for the Chinese Language and Culture Club, and is the designated representative of the Chinese Studies major in the Phi Kappa Phi National Honors Society.

Activities/Awards: Besides being the Phi Kappa Phi representative for Chinese Studies, Cole received the title of Freshmen Honoree from the same organization. He was also the recipient of GVSU's Academic Excellence Award in Chinese Studies.

Study Abroad experience: Cole spent a semester abroad in Taipei at National Taiwan Normal University, where he studied Mandarin Chinese and Linguistics.

Internship/Practicum experience: Cole has invested four summers as an EHS and quality intern at a Chinese-owned company called Minth.

Greatest accomplishment while at Grand Valley: Cole considers his greatest accomplishment at Grand Valley to be his progress with the Chinese language.

Plans after graduation: After graduation, Cole intends to either continue on as a quality engineer with translation responsibilities at Minth or pursue a language-related position with the US government.

Angela Vettori, Clinical Exercise Science



Senior Project title: A Multidisciplinary Approach to Eating Disorder Treatment

Summary of senior project: My project will be a systematic review of the current research on a multidisciplinary approach to treating eating disorders. In this process I will explore the nature of eating disorders, the current common treatment methods, their effectiveness, and if team-based treatment proves to be an improvement on those currently accepted methods.

Research and presentations: I completed a research project entitled Effects Of High Fat And High Carbohydrate Meals On Exercise Performance And Substrate Utilization. With a group I conceptualized, carried out, and analyzed this research which was presented in a poster at GVSU's Student Scholars Day 2016.

Leadership Activities: I am currently the Vice President of the GVSU American Red Cross Club. As Vice President I assist in organizing and running club meetings, communicating with members, and leading service and fundraising activities both on campus and in the greater Grand Rapids area.

Activities/Awards: I was a physiology tutor through Grand Valley's tutoring center for two years. I was a member of the Pre-Physical Therapy Club, Exercise Science Club, and GVSU's Belly

Dance Club for 2 years each. I was involved in GVSU's chapter of CHAARG for one year and I have been a member of the GVSU American Red Cross Club for four years. I also regularly volunteer at the Rest Haven Senior Citizen Care Community in Holland.

Internship/Practicum experience: I completed my Exercise Science Internship with the Horizon Complex Gym, where I was a gymnastics coach. I mainly taught preschool age kids, focusing on fundamental gymnastics movements and developing basic motor skills.

Greatest accomplishment while at Grand Valley: I was admitted into all three of the Doctor of Physical Therapy Programs to which I applied.

Plans after graduation: I plan to attend Wayne State's Doctor of Physical Therapy Program in Fall 2017.

Mason Villanueva, Allied Health Sciences with emphasis in Physician Assistant Studies, Minors in Biology and Dance



Senior Project Title: *Study Abroad Reflection and Analysis of Neonatal Mortality in Ghana*

Summary of Project: The purpose of this study was to take a comprehensive look at neonatal mortality both in Ghana and worldwide, and to then apply it to personal experiences during clinical rotations in Ghana. As part of sub-Saharan Africa, Ghana has one of the highest rates of neonatal mortality worldwide. It is concluded that there is a need for improved health education concerning neonates, not only in Ghana, but worldwide, to lower neonatal mortality and save the preventable neonatal deaths that are occurring each year.

Other research: I have also done research on interprofessional healthcare teams at Grand Valley for GVSU's college of Allied Health Sciences and Dr. VanderMolen.

Leadership Activities: I have held multiple leadership roles with Campus Ministry @ GVSU.

Awards: I have had the privilege of being awarded the Benjamin A. Gilman International Scholar for studying abroad in Ghana, as well as the Spectrum Health Diversity Scholarship three times.

Study Abroad Experience: I studied abroad the summer after my sophomore year in Ghana with the Honors College.

Greatest accomplishment while at GV: My greatest accomplishments while at GVSU have been: meeting my best friends, always having a job while in school, acing organic chemistry, and planning a wedding during senior year.

Plans after graduation: After graduation, I plan to get married and will start PA school at the University of Toledo in August!

Aaron Villarreal, Biomedical Science



Senior Project title: 3-Dimensional Models of Human Anatomy for Study

Summary of senior project: I will be creating a library of 3D models for the skeletal, cardiovascular, and digestive systems of the body. All the components of which I aim to have as detailed as you'd see them in the Anatomy handbook given to students. In doing so, I'd like to give students a manipulative 3D model that can simulate the learning experience of having the specific anatomical structure in front of them.

Plans after graduation: I am currently working on another degree at Ferris State University for Digital Animation and Game Design, and after graduation I will aim to finish that within a year. Though I am

extremely grateful of the education I've received at Grand Valley, the field of medicine is no longer something I want to pursue. I realize now that I would be much happier working in the video game industry, either programming or working in animation. My current dream job, and what I am currently aiming for, would be working for Blur Studio or Riot Games.

Rachael Vruggink, Advertising and Public Relations



Senior Project title: Public Relations and Marketing Tactics for Saugatuck Shorts Film Competition

Summary of senior project: Worked alongside the Saugatuck Center for the Arts team to strategize and execute a public relations campaign for the Saugatuck Shorts Film Competition. Using a combination of five event and filmmaker focused media releases, social media posts, and a reel of the competition's entries, the competition saw its attendance increase by over 50%. The tactics used yielded over a dozen press and digital pick-ups, three television spots, and air time on four surrounding radio stations.

Research and presentations: National Student Advertising Competition and presentation at the District 6 Competition.

Leadership Activities: President of the GVSU Advertising Club since 2015 and Co-Account Executive for Grand Valley's National Student Advertising Competition Team.

Activities/Awards: Grand Valley Award For Excellence, Grand Valley Faculty Scholarship, Frederik Meijer First Generation Honors College Scholar, Dean's List, Immediate Impact Award Finalist, GVSU Cook Leadership Academy Nomination, Outstanding Intern of the Year Nominee, and I Am Grand Valley. Also heavily involved with the GVSU Advertising Club as a board member and volunteer with the West Michigan American Advertising Federation and Grand Rapids Film Society.

Internship/Practicum experience: Intern/PR Assistant for HelloLife, LLC; Communications Project Manager/Programs Intern/Volunteer for the American Advertising Federation of West Michigan; Marketing Communications Intern for the Saugatuck Center for the Arts; Social Media & Marketing Intern for OXX Products, Inc.; Public Relations Assistant for Spectacle Creative Media; Blogger for HA Digital Marketing, and Project Manager & Copywriter for Our Full Attention, LLC.

Greatest accomplishment while at Grand Valley: The growth and awareness building of the Grand Valley Advertising Club has been one of Rachael's greatest accomplishments during her academic career at GVSU. Alongside her team, the Ad Club saw growth and steady attendance compared to the numbers reported in 2013 through 2014 and expanded programming with events like agency tours, the Resume Workshop, the Career Compass, Mentor Speed Dating, and the Creative Crawl. These events offered students networking and professional development opportunities with industry leaders in the Grand Rapids and West Michigan communities.

Plans after graduation: Rachael has been offered a full time position with Our Full Attention, LLC—a boutique advertising and engagement agency in Grand Rapids, MI—as a project manager, copywriter, and new business developer.

Steven Warda, Economics and Statistics

Senior Project title: Using Pittsburgh as a Model for the Revival of Detroit- An Application of the City Growth and Industry Mix Model

Summary of senior project: This study addresses the economic decline of Detroit through the lens of the decline and recovery of the city of Pittsburgh. Pittsburgh's expansion of their education and health services sector contributed to a more diverse city industry mix, promoting long-term growth. In this way, the paper concludes that Detroit is heading in the right direction through ongoing efforts to expand their industry structure beyond the automobile industry.

Research and presentations: Dominic Zuelch and I assisted staff in Grand Valley's Facilities Services Department with their research analyzing data on past fire alarm reports in student housing. We presented a poster detailing our experience as statistical consultants at GVSU's Student Scholars Day on April 12, 2017.

Leadership Activities: Through my role as a teaching assistant in the Structured Learning Assistance (SLA) program at GVSU, I lead workshops in statistics (STA 215) twice a week to help students understand and practice the topics covered in lecture.

Activities/Awards: I received the Outstanding Senior Thesis award with the Honors College in 2016, and this year received the Outstanding Student in Economics Award through the Seidman College of Business. I am a tutor in the Statistics Tutoring Center and volunteered at Family Futures in my third and fourth years at Grand Valley.

Internship experience: I served as a Legislative Intern for the Michigan House of Representatives in the summer of 2015.

Greatest accomplishment while at Grand Valley: After having changed majors twice at Grand Valley, I feel my greatest accomplishment was finally realizing which major was right for me and having the courage to start over midway through my college career.

Plans after graduation: I wish to pursue a master's degree in applied statistics or business data analytics within the next five years. However, I would like to gain some work experience first and am therefore pursuing an entry-level job in the financial services industry.

Jenna Williams, International Relations



Senior Project title: National Identity in Morocco: Monarchical Overreach

Summary of senior project: I traced the development and birth of the Moroccan national identity to the monarchy and argue its three-tiers were created to manipulate society. This has had negative effects on consecutive generations. I highlight these effects and caution the youngest generation to beware of monarchical overreach.

Research: Tamazight Curators: Gendered Seclusion in Morocco; Women in Post-Conflict States: The Schism of Gender Norms

Leadership Activities: Financial Officer of the Arab Culture Club

Activities/Awards: GV Award for Excellence

Study Abroad experience: I spent 4 ½ months studying Arabic and Islamic culture and politics in Meknes, Morocco. I returned for 3 months over the summer to continue my senior research, conducted through interviews, on identity, identity building and what it means to be Moroccan.

Internship/Practicum experience: I interned with a media and global intelligence company, "Searching Ideas", while studying abroad. I specialized in the Journalism and Digital Media Section with an emphasis on the Middle East and North Africa.

Greatest accomplishment while at Grand Valley: I learned to be unapologetically me and that sometimes, not knowing where you are going is the best direction to take because it allows you to explore a world of infinite possibilities and dreams.

Plans after graduation: I plan on taking two years off before graduate school to travel, develop my language skills and receive my certification to teach English as a foreign language. I hope to obtain a doctorate in Cultural Anthropology at University of Duke in the near future.

Kayla Williams, Creative Writing



Senior Project title: The Sowing of Minds

Summary of senior project: A fictional short story set in Octavia Butler's "Wild Seed" series.

Research and presentations: "The Vocabulary of Depression: Using Literature to Understand a Clinical Disease." A study of the affect of genre on the depiction of depression in literature.

Leadership Activities: Vice President of Capoeira Mandinga Club.

Activities/Awards: Distinction in Writing

Study Abroad experience: Two months in London, UK

Internship/Practicum experience: Internship with an Immediate Media magazine in London, UK.

Greatest accomplishment while at Grand Valley: My research project with McNair that I presented in a national undergraduate conference in Buffalo, New York.

Plans after graduation: I begin my Master of Fine Arts in Creative Writing at California Institute of Arts this Fall, eventually going to obtain my PhD and become a professor.

Skylar Wolfe, Psychology & Women and Gender Studies



Senior Project title: Challenging Classrooms to be Trans Inclusive

Summary of senior project: My senior projects (WGS and Honors) involved research on Trans undergraduate students' mental health and campus related difficulties in comparison to Cisgender LGBQ (Lesbian, Gay, Bisexual, and Queer) students and the overall undergraduate population. This research found that Trans students' mental health was suffering greatly even relative to their Cisgender LGBQ peers and demonstrated that classrooms were an area of substantial difficulty. In response, we produced a faculty professional development documentary (*Challenging Classrooms to be Trans Inclusive*). The documentary utilized un-scripted interviews which were woven together to reflect the experiences and suggestions of knowledgeable GVSU students, faculty, and staff.

Research and presentations: I have co-presented at *Decolonizing Your Mind: Beyond Inclusion and Equity*'s all day seminar, *Change*

U: Confronting Heterosexism and Cissexism, facilitated a variety of LGBTQIA+ discussions, and produced a short personal film (*Beyond Visibility: Phenomological Confliction*).

Leadership Activities: Previously, I was elected and served for three years as one of two State Representatives for the Midwest Bisexual Lesbian Gay Transgender Ally College Conference (MBLGTACC), have assisted mapping food equity in the Grand Rapids area, and helped map gender neutral bathrooms at Grand Valley for the AnyBODYS mobile app. Currently, I am acting as the Gender Justice House's Resident Assistant, a co-facilitator for Loud & Queer, a Youth Group mentor downtown at the Grand Rapids Pride Center, and am a fellow for both the National Association of Student Personnel Administrators (NASPA) and the Hauenstein Center for Presidential & Leadership Study's Cook Leadership Academy (CLA).

Awards: I have been awarded *the Ruth Chamberlain Global Issues Scholarship*, the *Outstanding Student Leader* award by the Milton E. Ford LGBT Resource Center, the *WGS Award for Academic Excellence*, Student Life and Student Affairs' *Thomas M. Seykora Award for Outstanding Contribution*, and my Senior Project was selected as the *Outstanding Civic Engagement Project* for the Honor's class of 2017. In addition, I have been nominated for *I Am Grand Valley* from 2014-2017 and for *Lead Like a Laker* by GVSU's Housing and Residence Life.

Study Abroad & Internship/Practicum experience: I studied abroad in South Africa with the WGS department in both the Summer of 2014 and 2016. During both trips, I completed an internship with SHAWCO helping to facilitate an after-school program for sixth grade students in Manenberg Township. During 2016, I also interned with the WGS department as a Teacher's Apprentice for the trip acting as support to GVSU undergraduate students during their first experience abroad and facilitating study sessions.

Greatest accomplishment while at Grand Valley: Completing my senior projects was my greatest accomplishment while at Grand Valley. I hope that together the video and research work to improve institutional conditions for future Trans students at Grand Valley and potentially beyond Grand Valley at other institutions.

Plans after graduation: After graduation, I am hoping to stay in the Grand Rapids area, continue volunteering at the Grand Rapids Pride Center, to work at a non-profit, and to take some time to finalize my graduate school plans. My intentions are to pursue a career in either counseling or student affairs.

Audrey Yeiter, Biomedical Sciences



Senior Project title: *Collaboration in the Classroom: One-Shot Library Instruction*

Summary of senior project: My senior project focuses on the collaboration of librarians and research consultants in the classroom setting. It serves as a guide for current and future consultants on how to successfully engage students in the classroom and encourage use of strategic, effective research tactics.

Research and presentations: I participated in a project at the University of Michigan's Molecular and Behavioral Neuroscience Institute that focused on specific neuronal protein phosphorylation pathways and their influence on depressive disorders. I also co-created a phage isolation project here at Grand Valley State with Dr. Steven Hecht.

Activities/Awards: I am a member of Phi Sigma Sigma Sorority and served on the Executive Board as the Scholarship Chairperson. I have been awarded two educational grants through the Phi Sigma Sigma Foundation and membership into their honor society, the Sigma Society. I was awarded the "I Am Grand Valley" leadership award in 2015 and 2016 as well as GVSU Panhellenic Association's Most Dedicated to Academic Achievement award in 2016. I received the Excellence in Cell and Molecular Biology award in 2014 and 2015 as well as the General Chemistry Excellence award in 2015. I was also recognized as a Biomedical Sciences Graduate of Distinction for 2017

Study Abroad experience: I studied abroad in Reggio Emilia, Italy during the Summer of 2015. The USAC program focused on lifelong nutrition, Italian culture and the Italian language.

Greatest accomplishment while at Grand Valley: My greatest accomplishment at Grand Valley was being able to influence my peers in a positive way through my work as a Lead Research Consultant, an Honors mentor and the Scholarship Chairperson of my sorority

Plans after graduation: In the Fall of 2017, I will begin my pursuit of a Pharm.D. degree at the University of Michigan's College of Pharmacy.

Ryan Zahran, Biochemistry



Senior Project title: Learning biochemistry through virtual reality: Developing a spectroscopic simulation of protein folding

Summary of senior project: The purpose of this project is to create a 3D visualization of protein folding, to help students better understand this complex process. Using a computational model, we simulated protein unfolding and refolding of Domain B of Protein G; a protein found on *Streptococcus* bacteria that helps pathogens evade human antibodies. These simulations were used to create a spectroscopic 3D movie, to be used in the biochemistry classroom and uploaded onto Youtube for use with virtual reality goggles. This is the first phase in creating virtual reality simulations to assist in student's understanding.

Research and presentations: Evaluating Pupil Dilation as a Measure of Working Memory and Logical Thinking. This research was presented at the Student Summer Scholars Showcase

(GVSU), Student Scholars Day (GVSU), and the 251st American Chemical Society National Exposition (San Diego, CA).

Leadership Activities: Treasurer of Peace Means, Member of Sigma Alpha Lambda

Activities/Awards: Academic Excellence (2016 Undergraduate Research Scholar)

Internship/Practicum experience: Student Summer Scholars research

Greatest accomplishment while at Grand Valley: My greatest accomplishment was being awarded the Student Summer Scholars research grant, which allowed me to perform paid summer research on a topic of my interest. Part of this including having my research accepted to be presented at the 251st American Chemical Society National Exposition.

Plans after graduation: Plan on attending Physician's Assistant School

Nicholaas William Zomer, Management Information Systems



Senior Project title: The Role of Emotions in Social Change: The French Revolution

Summary of senior project: In this research project we examined the effects of social and emotional reactions/atmospheres during the late 18th century as it relates to the French Revolution and social change as a whole. A social science framework was used throughout this project, with additional research from leading sociologists such as William Reddy, Frank Kaffker and Sarah Maza. In regards to findings: various links were found between emotions and social change, and specific reactions and occurrences throughout the time period are also cited in regards to how the social environment during the time period affected them.

Research and presentations: The Expansion of

the Church's Power: From Theodosius I until the 6th Century AC. A Nation in Conflict: France, Laïcité and Islam. Andre Le Breton, publisher of the Encyclopedia, was he justified or not?, Various Business Cases and Memos

Leadership Activities: Resident Assistant, President of the Enterprise Systems Student Union, Club Sports Executive Council Member, Commodore of Club Sailing, Business Manager at the Grand Valley Lanthorn, Member of the Student Media Advisory Board, National Society of Collegiate Scholars Member

Activities/Awards: SAP TERP10 Certified Associate, Club Sailing Barnes Leadership Award, I am Grand Valley Leadership Award

Internship/Practicum experience: Stryker Corporation Intern with GIO MSNT Org.

Greatest accomplishment while at Grand Valley: Helping build the Universities Club Sailing team: leading us to compete in first-ever regatta like the Intercollegiate Offshore Regatta, leading us to receive our first ever recognition for holding a "staple" regatta the MCSA "Regatta of the Year" award and creating fundraising and team traditions such as the annual family weekend golf outing.

Plans after graduation: Travelling over the summer with family and friends, then starting at Deloitte Consulting as a Business Technology Analyst within their SAP ERP practice.
