

Emma Wilson

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EDUCATION

Grand Valley State University – *Padnos College of Engineering and Computing, Grand Rapids, Michigan*
Bachelor of Science in Engineering, Major: Biomedical Engineering

Expected 2025

- GPA: 3.45

PROJECT EXPERIENCE

Mini Sumo Robot/Line Following Robot Project

Winter 2022

Objective: To design and build a functioning sumo robot that could imitate a real sumo wrestler

- Benchmarked different robot designs using cardboard and other on-hand materials
- Chose the best design based on the restrictions of the project and within the specified budget
- Designed the robot in SolidWorks
- Programmed the robot in Arduino C
- Milled the robot body using CNC machines and assembled robot

Outcome: The robot functioned successfully, sensed the other robot and followed the line

WORK EXPERIENCE

Lafarge Holcim, Presque Isle, Michigan
MSHA Certified Miner

Summer 2022

- Shadowed Quarry Engineers to produce accessible stone for aggregate customers
- Managed production piles of stone based on their chemical composition and dimension specifications
- Certified and worked with heavy equipment including 785 CAT Haul truck, skid loaders, aggregate conveyors, and primary stone crusher
- Learned about stone quarry supply chain beginning from the mining process to distribution of Lafarge Holcim product.

Culvers, Allendale, Michigan
Crew Member

Summer 2020

- Helped to maintain operation of equipment and ensure working conditions
- Trained new employees and enforced proper procedures

Goldfish Swim School, Grand Rapids, Michigan
Guest Safety Supervisor

2019 - 2020

- Structured and developed courses for various levels of swim and waterfront safety lessons
- Protected the safety of all patrons as a Red Cross Certified lifeguard

LEADERSHIP AND EXTRACURRICULAR EXPERIENCE

FIRST Robotics, Grand Rapids, Michigan

2022-2023

- Collaborated with a team of 4 to design a robot that was built to fill a cargo ship

East Grand Rapids Park and Recreation, Grand Rapids, Michigan

Summer 2022

- Coached youth soccer camp, mentored kids with productive team skills and work ethic

Habitat for Humanity, Grand Rapids, Michigan

2021 - 2022

- Built houses and actively aided in scheduled projects for Habitat for Humanity

SKILLS

Software: SolidWorks/Cam, MS Excel, Word and PowerPoint, C Programming

Engineering: GD&T, Arduino/Micro-controller, Benchmarking & Problem Solving

Hands-On: CNC Mills, Basic Carpentry, Car Maintenance

***Pre-approved by GVSU to conditionally accept a co-op offer as of October 14, 2023**