

Katherine Giammalvo

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Education

University of Michigan

Ann Arbor, MI

Bachelor of Science in Mechanical Engineering, Minor in Computer Science, Program in Sustainable Engineering

May 2022

College of Engineering Honors Program & Tau Beta Pi Engineering Honor Society

Relevant Courses: Robots, Sensors, & Smart Water; Intro to Solid Mechanics; Thermodynamics I; Dynamics & Vibrations; Programming & Introductory Data Structures; Sustainability & Society; Design & Manufacturing I

Cumulative GPA: 3.84/4.00

Experience

University of Michigan

Michigan Research and Discovery Scholars (MRADS), College of Literature Science and the Arts Fall 2018 - Present

- Maintained active involvement in the community while mentoring 5 freshmen to assist with transition to college
- Developed a new system of 3D microscopic imaging alongside a U-M professor which was presented at a research symposium
- Planned events to promote socializing and wellness within the community and represented MRADS online through social media
- Provided academic resources by facilitating study sessions for intro physics students in the community

Physics 140 Learning Assistant, Physics Department

August 2019 – December 2019

- Created an accepting learning environment for group of 24 students by answering questions about course material and encouraging discussions among group members, allowing them to learn from each other and ultimately succeed in the course
- Worked with students in weekly office hours to provide additional help and ensure a firm grasp of the material

Robots, Sensors, & Smart Water, Civil and Environmental Engineering Department

Fall 2018

- Studied innovative applications of modern “smart” technology in solving water related issues including water waste, flooding, waste water treatment, dead zones, drought, contamination, and combined sewer overflow
- Designed a network of piezoelectric sensors to detect leakage in a water distribution system with the goal of reducing waste
- Worked alongside an interdisciplinary team of engineers to construct and test a prototype of this system

Johns Hopkins University Applied Physics Laboratory ASPIRE Program, Columbia MD

Summer 2017

- Collaborated with a group of 12 other students to design, construct, and test a model of a missile interception system involving one flywheel launcher, one pneumatic launcher, object tracking program, and various electrical circuits
- Refined designs and testing processes based on data collected from preliminary testing
- Presented a completed design and final testing results to a panel of mentors at the Applied Physics Laboratory

Appalachian Service Project

August 2013 – June 2018

- Improved homes and quality of life for residents in the Appalachian area while learning about their community and culture
- Represented the ASP organization through fundraising activities and community awareness events
- Collaborated with team members to complete flooring, roofing, structural, plumbing, and outdoor construction projects while maximizing use of time and materials

Honors & Extracurriculars

Engineering Honors Program | Winter 2020

Tau Beta Pi Member, Campus Outreach Chair | Fall 2019 - Present

Theme Park Engineering Group | Fall 2018 & 2019

Cross Country and Track Team Captain | 2017 – 2018

Set Construction Team, Head of Scenic Art Wilde Lake Theater Department | 2016 – 2018

Marching Band President | 2017 – 2018

First Place Overall in the Howard County STEM Fair | 2015