Andrew Vernier

(248) 238-4331
amverni@umich.edu
https://github.com/amverni
1346 Geddes Ave, Apt 3
Ann Arbor, MI 48104

EDUCATION

University of Michigan — Ann Arbor, MI
Bachelor of Science in Engineering – Computer Science — May 2020
Minor in Multidisciplinary Design
GPA: 3.94 / 4.00
Coursework: Operating Systems (EECS 482/498), Programming Languages (EECS 490), Data Structures and Algorithms (EECS 281), Intro to Computer Organization (EECS 370), Foundations of Computer Science (EECS 376)

University of Navarra – Tecnun — San Sebastian, Spain
Study Abroad — May – June 2017
Coursework: Microrobotics, Spanish Language and Culture

EXPERIENCE

Garmin International — Novi, MI
Automotive OEM, Software Engineer Intern — April – August 2018

- Designed a framework for GUI testing the navigation application by allowing the user to emulate interactions between the application and the client's API.
- Implemented asynchronous tasks for the navigation application such as home locations details and map preview generation to fulfill requirements set by client's API.
- Created developer tools to increase testing and debugging efficiency such as automatic log recordings and automatic library downloading using GDB given a core dump file.

LEADERSHIP

University of Michigan Mars Rover Team — Sept. 2017 – present
Autonomous Navigation Lead — March 2018 – present

- Designed and built state machine for autonomous mode of the rover.
- Organized workshops and delegated projects to increase new member involvement and retention.
- Coded driving, turning, and obstacle avoidance algorithms to interface with the rover's computer vision.
- Developed a path planning algorithm for the rover's autonomous search.
- Introduced obstacle avoidance and field of view capabilities to the autonomy simulator.
- Implemented parser for obtaining useful information from raw magnetometer output.

University of Michigan Roller Hockey Club — September 2016 – August 2018
President, Captain — January 2017 – August 2018

- Managed logistical and financial measures necessary for club functionality including communications with Club Sports, MCRHL Conference, and various local rinks.
- Led practices and mentored team's less experienced members to help with team growth.

PROJECTS

University of Michigan Coursework — September 2016 - present

- Devised solution to MST and a TSP heuristic to increase efficiency of TSP solver.
- Generated and tested a modified stock market simulation using priority queues.
- Constructed computer abstraction, including a pipeline and cache, with basic functionality using mock assembly language.
- Created machine learning program to classify posts on an online Q&A website.

University of Navarra – Tecnun: Microrobotics — May – June 2017

- Programmed autonomous robot to complete maze in team comprised of Tecnun and Michigan students.

SKILLS

Computer: C/C++, Python, Qt, Squish GUI testing
Language: Spanish (medium writing and speaking fluency)