Erik Lytle

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EDUCATION

University of Michigan **Ann Arbor, MI**
Bachelor of Science in Engineering in Computer Science Engineering Aug 2020 – Apr 2024
Minor in Interdisciplinary Astronomy
GPA: 3.73
Relevant Coursework: Web Systems, Data Structures and Algorithms, Foundations of Computer Science, Applied Computational Machine Learning

PROFESSIONAL EXPERIENCE

Michigan Anesthesiology Informatics Systems Exchange **Ann Arbor, MI**
Software Engineering Intern Jun 2021 – Sep 2022

- Designed and developed a mobile application platform for MAISE using the Flutter framework to transition MAISE's web based patient systems to a mobile format for better patient access
- Built back-end architecture using the Flask framework to support data processing and input from patients
- Adapted dynamic forms for patient input from web to the mobile application format
- Implemented an internal faculty and staff contacts page with a search feature using custom Dart widgets

PROJECT EXPERIENCE

Michigan Mars Rover Team **Ann Arbor, MI**
Teleoperations Team Member Aug 2020 – Present

- Designed and developed the rover's graphical user interface using Vue.js, HTML, CSS, and JavaScript
- Collaborated with other team members to detail new features and capabilities to meet the team's technical needs for the user interface
- Implemented changes to the inverse kinematics algorithms used to control the robotic arm to improve accuracy and efficiency
- Managed subteam workflow using Git within larger MRover software Github project
- Achieved 1st place at both the University Rover Competition and the Canadian International Rover Competition in 2022, where the user interface was used by team members to successfully control and receive feedback from the rover

University of Michigan **Ann Arbor, MI**
Zookeeper Feeding Route Nov 2021

- Implemented a variation of the traveling salesman problem, where the most optimal route to visit a number of points was calculated using Prim's algorithm
- Designed a Branch and Bound algorithm to find the optimal solution with optimal time complexity

Euchre Game Simulator Mar 2021

- Designed a C++ command line tool using object oriented programming to run the classic card game Euchre that allowed for both human and simulated players
- Implemented a faro shuffle algorithm to simulate an in-shuffle and make each hand different

SKILLS

Languages: C/C++, Dart, HTML, CSS, JavaScript, Julia, Python
Frameworks/Tools: Git, Vue.js, Flask, Azure Data Studio, Docker