Eric Zhang

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GitHub

Education

University of Michigan Ann Arbor, MI
Bachelor of Science in Engineering in ***Computer Science*** *Expected Graduation May 2025*

- **GPA: 4.0/4.0**
- **Relevant Coursework** : Data Structures & Algorithms, Machine Learning, Operating Systems, Computer Architecture, Theory of Computer Science, Software Engineering, Discrete Mathematics, Linear Algebra, Multivariable & Vector Calculus

Skills

Languages: C/C++, Python, MATLAB, HTML/CSS/JavaScript

Tools and Frameworks: git, Vue, React, pandas, VSCode, Linux

Work Experience

Michigan Medicine Ann Arbor, MI
Machine Learning Research Assistant *May 2023 - Aug 2023*

- Developed a privileged logistic regression pipeline for identifying Acute Respiratory Distress Syndrome in chest x-ray embeddings, achieving an AUC over 84 percent
- Produced a localization map highlighting critical areas within chest x-rays used by Convolutional Neural Nets for identifying Acute Respiratory Distress Syndrome
- Leveraged 15 minute intervals of Apple Watch heart rate data to predict Atrial Fibrillation events 5 minutes in advance, attaining an accuracy over 69 percent
- Utilized Pandas and Excel to manipulate and analyze large amounts of patient data

All Seasons Ann Arbor (Senior Living) Ann Arbor, MI
Server *May 2022 - Aug 2022*

- Provided personalized food service to elderly individuals, ensuring a comfortable and enjoyable dining experience

Project Experience

Michigan Mars Rover Team Ann Arbor, MI
Teleoperation Team Member *Sep 2022 - Present*

- Developed interactive user interface components for the rover's GUI using Vue.js, enabling remote control of the rover and real-time data visualization
- Utilized Django for publishing and subscribing to Robot Operating System (ROS) topics, enabling communication between the rover and the GUI

Projects

Traveling Salesperson Visualizer | *C++| HTML/CSS/JavaScript* Dec 2023 - Jan 2024

- Created an online visualization tool designed to tackle the Traveling Salesperson Problem (TSP), plotting both the optimal solution and a solution derived from a random insertion heuristic. It supports manual entry or uploading text files

Post Topic Identifier | *C++* April 2023

- Implemented a Naive-Bayes classifier to identify the subject of posts in online question-answer forum Piazza, achieving an accuracy of over 85 percent

Autonomous Drone Flight Controller | *Python* Aug 2022 - Dec 2022

- Collaborated with a team to implement a PID flight controller capable of maintaining the drone's altitude within a 1 meter margin and detecting and avoiding obstacles at a rate above 98 percent