Jason Lin

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Education

University of Michigan – Ann Arbor **December 2025**
Bachelor of Science Engineering in Computer Science **GPA**: 4.0

- Relevant Coursework: Data Structures and Algorithms, Web Systems, Computer Security, Foundations of Computer Science, Computer Organization, Programming and Intro Data Structures, Logic Design

Skills

Languages: C++, Python, HTML/CSS/JavaScript, R, Shell, SQL
Technologies: MongoDB, ExpressJS, ReactJS, Node.js, Git, RStudio, ROS, Bootstrap/Tailwind, AWS, Docker

Projects

Fantasy Swim **June 2023-Present**
Skills: MongoDB, ExpressJS, ReactJS, Node.js, Tailwind, HTML/CSS/JS, REST API

- Designed a full-stack web application using MERN that allows users to "draft" active competitive swimmers and compete against other drafters
- Implemented a robust REST API backend that utilizes Mongoose to interact with the NoSQL database and Selenium to scrape necessary information from online
- Utilized React hooks and HTML alongside Tailwind CSS to create the front end, providing a comfortable and easy-to-navigate UI for users
- Linked the React frontend to the REST API backend using fetch requests and asynchronous coding

Application Bot **May 2024-Present**
Skills: Python, Web scraping

- Created a Python program that utilizes Selenium WebDriver to automatically fill in applications hosted by Workday, Greenhouse, and Lever
- Uses a chatbot to parse questions and map them to the appropriate responses
- Organized codebase into several modules and a Python package for easier maintenance and reusability
- Wrote a short script to scrape application links from an email, which are then given to the main driver

C++ ANN/CNN **July 2024-Present**
Skills: C++, Machine Learning

- A full implementation of neural networks using C++ to understand AI/ML models more deeply
- Using only the stdlib, wrote an ANN and CNN to classify the Simpsons MNIST dataset, a dataset of 28 x 28-pixel images containing Simpson's characters
- Wrote an ANN with 2 hidden layers of 256 nodes and 128 nodes and ended with an output layer of 10 nodes; this architecture reached an accuracy of 40% on the test set
- Wrote a CNN with 6 convolutional layers, 3 max-pooling layers, and then 2 fully connected layers along with additional features such as the same padding for some convolutional layers and dropout; this architecture reached an accuracy of > 95% on the test set

Activities and Interests

UM Autonomy | Computer Vision Sub-Team **Fall 2023-Present**
Skills: Python/C++, ROS, CV, Docker

- Worked on CV sub-team for this project team based on testing and developing an autonomous boat to compete in the RoboNation RoboBoat competition
- Brainstormed ideas for and implemented a computer vision program in Python to identify buoys, game objects, and other obstacles that the boat is required to navigate around
- Worked with ROS2 to implement effective message synchronization that allowed the boat to perform at full capacity

Interests: Swimming, Running, Bodybuilding/Powerlifting, Origami