

Languages: Java Python C C++ OCaml MicroPython HTML Javascript CSS

Technologies: Node.js React SQL Tensorflow Git Android Studio Raspberry Pi Arduino

Education

B.S. Computer Science, University of Minnesota – Twin Cities

CGPA: 3.37/4.00 | **Technical GPA:** 3.75/4.00 | **Expected Graduation:** December 2021

American Degree Program – Computer Science, Taylor's Lakeside University

CGPA: 3.52/4.00 | **Graduation Date:** December 2018 | **Award:** Dean's list, Cum Laude Award

Experience

Student Developer

July 2019 – Sept 2019

University of Minnesota Research Facility – Minnesota Traffic Observatory

- Developed a beacon in MicroPython using micro-controllers together with the GPS and LTE module.
- Decreased beacon power consumption by 30% by implementing a new lower power consumption IoT development board.
- Managed the transition of code from an existing prototype in Pyboard to the new Pycom board.
- Improved efficiency and readability of existing modules through refactoring and writing documentations.

Can You Hack It Hackathon

Oct 2018

Hong Leong Bank, Malaysia

- Developed a mobile application that facilitates personal financing by categorizing payments for data visualizations.
- Implemented hash table in keyword matching on the backend system using Java to categorize payments into 5 categories.
- Integrated MPAndroidChart library to create both pie charts and line charts to visualize personal spendings.

Personal Projects

Facemoji

- Web application that detects facial expression and provides corresponding emoji.
- Designed a emotion classification model trained using photo data entries from deep learning frameworks on Tensorflow.

Foodie

- Web application that provides a simple and efficient way of getting grocery list based on selected food recipes.
- Built and designed using React together with the implementation of Food2Fork recipe API to retrieve data in JSON.
- Designed RESTful backend server to enabled saved recipes to be stored persistently in an online database.

Guide glasses for the Blind

- Created a pair of glasses with Raspberry Pi in Python that helped the visually impaired to move around.
- Implemented ultrasonic sensors and infrared sensors to detect objects in their surroundings.
- Applied GPS modules for navigation and safety purposes with the implementation of speech libraries to give voice-based instructions.

FaceSmart

- Web application that detects faces in photos.
- Designed and built with React together with the implementation of Clarifai's face recognition API.
- Applied PostgreSQL data management system to manage and store the users' data.

Leaderships

Taylor's University Symphony Orchestra Concertmaster & Penang Philharmonic Orchestra 2nd Violin 1st Chair

- Managed weekly sectionals with strict discipline and enhanced collaborations among the players.
- Demonstrated different violin playing styles and techniques to the players based on the conductor's needs.

Secondary School Robotics' Club President

- Managed club's weekly meetings with different learning activities assisted by my board members.
- Brought in the idea of teaching Arduino and Raspberry Pi after class to promote STEM in my school.

Awards

International Invention and Technology Exhibition 2016 Gold Award (Malaysia)

International Exhibition for Young Inventors 2016 Silver Award (China)

- Guide Glasses for the Blind