

Qi Heng Lee

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<https://github.com/QiHengLee>

EDUCATION

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

Expected Graduation: Dec 2021

GPA: 3.50 / 4.00 | Technical GPA: 3.71 / 4.00 | Award: Dean's List

EXPERIENCE

Incoming Undergrad DevOps Technical Intern
Intel Corporation

Start Date: 18 May 2020

Web Developer Research Assistant
Uni. of Minnesota Center for Filtration Research

- Developed an air filter modeling & design web application for 20+ CFR member companies collaborating with UMN's filtration research.
- Reduced the round-trip time of obtaining global air quality data by 25% by caching reusable data from API in an implemented backend *MySQL* database.
- Integrated the frontend with *JavaScript* and the development of server with *Python Django* framework libraries.
- Leveraged knowledge in HTML, CSS, JavaScript, JSON, SQL, Python and Django

Impresso Labs
Software Developer

- Worked with developers to build a Professional Networking Meetup application with global growing users.
- Completed full redesigns of existing web app to improve navigation and visuals.
- Introduced *Flutter* for Minimum Viable Product (MVP) mobile application developments.
- Managed the migration of existing *Laravel* web application onto *Flutter*
- Collaborated, discussed with the Founder to deliver valuable features meeting business and customer needs.
- Leveraged knowledge in Dart, Flutter, PHP and Laravel framework

Student Software Developer
Uni. Of Minnesota Civil Engineering Department

- Developed a construction monitoring beacon in *MicroPython* using micro-controllers together with the GPS and LTE module.
- Reduced power consumption by 30% by introducing a lower power consumption IoT development board.
- Debugged and optimized automation programs while migrating from an existing prototype to a new board.
- Improved efficiency and readability of existing modules through refactoring and writing documentations.
- Leveraged knowledge in Python, MicroPython and Pycom.

PERSONAL PROJECTS <https://qihenglee.github.io>

Guide Glasses for the Blind

- Built a pair of glasses powered with *Raspberry Pi* in *Python* for the visually impaired.
- Implemented ultrasonic sensors and infrared sensors to detect the surroundings.
- Applied GPS module for navigation and safety purposes with implementation of automated speech libraries.

Foodie

- Web application that provides a simple and efficient way of getting recipe online
- Built using React together with the implementation of Food2Fork recipe API to retrieve data in JSON

LANGUAGES

Java ; Python ; C ; C++ ; OCaml ; HTML ;
CSS ; JavaScript ; PHP ; MySQL

TECHNOLOGIES

React ; Flutter ; Django ; Node.js ; SQL ;
Visual Studio Code ; Unix ; Raspberry Pi ;
Arduino

LEADERSHIP ROLES

Taylors University Symphony
Orchestra Concertmaster

Penang Philharmonic Orchestra
Assistant Principal

- Managed weekly sectionals with strict discipline by teaching them different techniques of playing different pieces.
- Enhanced collaboration among the players by hosting gathering and sharing event throughout the year.

High School Robotics' Club President

- Increased the number of participants in the club by 47 members by performing robotic demonstrations to further STEM education in our school.
- Brought in the idea of teaching Arduino and other micro-controllers after school to promote STEM.

AWARDS

International Invention, Innovation and Technology Exhibition 2016

- Gold Award (Guide Glasses for the Blind)

International Exhibition for Young Inventors 2016

- Silver Award (Guide Glasses for the Blind)