

Maxwell Yang

ENGINEERING PHYSICS UNDERGRADUATE STUDENT

Vancouver, Canada

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Technical Skills

Programming Languages: Java, Python, JavaScript/JSP, C++, HTML, CSS, SQL

Development Tools: Node.js, Git, Android Studio, GCP, AWS, React, React Native, Azure

Other: Linux, Docker, GraphQL, PostgreSQL, MongoDB, Github, Bitbucket, JIRA, Confluence, Agile

Education

University of British Columbia

Vancouver, BC

BASC IN ENGINEERING PHYSICS, MINOR IN HONOURS MATHEMATICS

Sept 2017 - Apr 2022 (expected)

- 86.7% cumulative average, 2017 - 2019 Dean's Honour List
- **Relevant Courses:** Algorithms and Data Structures, Software Construction, Intermediate Algorithm Design and Analysis

Experience

Powerhouse Building Solutions

Surrey, BC

WEB DEVELOPER/TECHNICAL LEAD (REACT, NODE.JS, POSTGRESQL, GOOGLE CLOUD, GRAPHQL)

June 2020 - Present

- Lead web developer in charge of designing and implementing fully functional e-commerce web platform
- Employing the PERN stack for development with deployment on GC App Engine and payment gateway leveraging Stripe
- Utilizing GraphQL for requests with the Express server framework to communicate with CloudSQL (PostgreSQL) database

Canadian Food Inspection Agency

Ottawa, ON

MOBILE APPLICATION DEVELOPER INTERN (ANDROID STUDIO, JAVASCRIPT, NODE.JS, SQL, LINUX)

Jan 2019 - Apr 2019

- Built an enterprise-level Android communication application designed for the workplace from end-to-end
- Developed in Android Studio embedding the MVC (Model-View-Controller) design pattern for code architecture
- Designed structure of RDBMS implemented in PostgreSQL, interacting with database using SQL commands in Node.js
- Facilitated HTTP requests using a REST API from Express.js to connect to PostgreSQL and user authentication in Node.js
- Collaborated with teammates to ensure consistency and efficiency with daily stand-ups and frequent code review

Projects

greenEats (Winner of nwHacks 2020) - <http://bit.ly/nwHacks20>

(ANDROID STUDIO, GOOGLE CLOUD, MICROSOFT AZURE, STANDARD LIBRARY)

Jan. 2020

- Awarded 1st place out of 145 teams at nwHacks, Western Canada's largest 24-hour hackathon
- Handled full-stack development for greenEats: an all-in-one grocery and food waste management app
- Integrated Firebase ML Kit Vision API to scan receipts and catalog items stored in Cloud Firestore
- Enabled speech-to-text voice recognition to catalog items using voice commands operated through Microsoft Azure
- Constructed custom API in stdlib to suggest recipes using items close to expiry to incentivize food waste prevention

Machine Learning Robot Simulation - <http://bit.ly/ml-robot>

(PYTHON, ROS, GAZEBO, LINUX)

Sept. 2019 - Dec. 2019

- Awarded 3rd place out of 20 teams
- Used Python, ROS, and Gazebo to simulate a machine learning robot intended to navigate a parking lot based course
- Implemented computer vision capabilities using OpenCV for operations on images, object detection, and navigation
- Constructed multi-layered neural network to correctly identify license plate characters utilizing TensorFlow and Keras

Hedwig (Engineering Physics Robot Competition) - <http://bit.ly/robot-comp>

(C++, ARDUINO)

May 2019 - Aug. 2019

- Awarded 2nd place out of 16 teams at the Annual Engineering Physics Robot Competition, robot built from scratch
- Led software development on fully autonomous robot in C++ using the Arduino library integrating object-oriented design
- Implemented a PID controller for robot movement and communication between two STM32 Blue Pills for arm movement
- Worked on integration testing of robot by ensuring consistency as new components were built and added onto the robot
- Prototyped and designed robot in OnShape, applying engineering methodologies to iterate through design concepts