



Kyle Mackenzie

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TECHNICAL SKILLS

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

Frameworks / Packages: React, MongoDB, Node.js, JUnit, NumPy & Pandas, TensorFlow, Selenium

Tools/Environments: Git, Docker, MongoDB, Jupyter Notebooks

EDUCATION

University of British Columbia

Vancouver, BC

Engineering Physics - Bachelor of Applied Science

Sep. 2020 - May 2025 (expected)

Coursework: Software Design, Linear Circuits, Experimental Techniques, Multi-variable and Vector Calculus.

RELEVANT EXPERIENCE

Full-Stack Developer Co-op

Jan. 2022 – Apr. 2022

ICBC

Vancouver, BC

- Produced automation solutions while improving development time by 50% compared to company standard.
- Developed prototype for automation of company process to reduce labour and resources spent and expedite results to customers.
- Rapidly developed test cases for complex internal web application to minimize risk of bugs in production during upgrades, using economic and innovative architectural decisions.
- Prototyped a 3D, gamified version of current ICBC Knowledge Practice Test to increase customer engagement and learning, and improve road safety.

Propulsion Testing Member

Sep. 2021 – Jan. 2022

UBC Rocket Student Design Team

Vancouver, BC

- Operated test stand during cryogenic dress-rehearsal of engine hot-fire.
- Accelerated schedule by 2 weeks by improving existing PLC and HMI software on engine test stand.

Front-End Developer

May 2021 – Sep. 2021

Charlene's Web Services

Remote

- Developed a slideshow application using JS, express.js, HTML/CSS for deployment on WordPress marketplace.

Embedded Systems Developer

Jan. 2021 – Sep. 2021

UBC Solar Student Design Team

Vancouver, BC

- Developed multi-threaded communication firmware for micro-controllers to communicate through serial, radio, and cellular for real-time data acquisition during solar car races.
- Wrote documentation for embedded software algorithm to ensure complete understanding for future employees.

TECHNICAL PROJECTS

Social Network Analysis Project | 3 person project - Java, Git, JUnit

Oct. 2021

- Developed a Graph data structure to represent relationships between co-workers from a company's email records.
- Implemented methods for depth-first and breadth-first search, as well as finding the shortest path between 2 users.

Online To-Do List | JavaScript, Node.js, Heroku, Express.js, MongoDB, HTML/CSS

Aug. 2021

- Developed a database-powered web application in Node.js front to back.
- Implemented a MongoDB database to store users' lists locally for revisiting.

Image Classifier | Python, TensorFlow, Google Colab Notebooks

Sep. 2020 – Oct. 2020

- Employed and trained a neural network to identify clothing items with over 90% accuracy.

INTERESTS

Hiking • Robotics • Music Production • Web Design