



# Kyle Mackenzie

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## TECHNICAL SKILLS

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

**Frameworks / Packages:** Docker, React, MongoDB, Blue Prism, Node.js, JUnit, NumPy & Pandas, TensorFlow

**Tools/Environments:** Git, SVN, VS Code, IntelliJ, STM32, Google Colab & Jupyter Notebooks, PLC, HMI, LabView

## RELEVANT EXPERIENCE

### Full-Stack Developer Co-op

Jan. 2022 – Present

*ICBC*

*Vancouver, BC*

- Reduced time spent on Insurance Broker processes by 30% using automation tools in Python including Robot Framework, Robocorp, and deployed using Docker
- Developed and deployed a React app for a demo of a potential new website for ICBC
- Developed Blue Prism automation program to periodically deliver email of a user's most listened-to songs from Spotify.

### Propulsion Testing Member

Sep. 2021 – Present

*UBC Rocket Student Design Team*

*Vancouver, BC*

- Operated test stand during cryogenic dress-rehearsal of engine hot-fire.
- Modified existing PLC and HMI software on engine test stand to implement new features for ignition testing, accelerating launch date by 2 weeks.

### 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.
- Used test-driven development and to achieve 90% branch coverage.

### 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.

## 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.

## INTERESTS

Hiking • Robotics • Music Production • Weightlifting