

# MICAH LAU

micahelau@gmail.com ◇ micahlau.com ◇ linkedin.com/in/micahlau ◇ github.com/micah-eL

## TECHNICAL WORK EXPERIENCE

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### FORM Athletica

May 2021 - Dec. 2021

*Software Development Engineer in Test Intern (Embedded Systems)*

- Developed multi-threaded automation scripts for testing device firmware with Python and Bash that dealt with time sensitive command execution and limited memory, then set up scripts as Jenkins jobs
- Developed automation scripts using Appium and Postman/Newman to test interactions between our mobile apps and various endpoints on FORM's API
- Implemented new features for our file transfer CLI, which is used for almost all interactions with the device firmware such as sending/receiving files, configuring user data, transferring protobufs, and more

## PROJECTS

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### X Swim Team API and iOS app

Oct. 2021 - Present

- Prototyped a web API using Python and Flask-RESTful that queries a MySQL database which stores information commonly used by swim teams
- Developed an iOS app that queries data from the database using this API, then displays the information in a user friendly manner
- Implemented a fully functioning REST API based on the prototype using the MERN stack and MVC

### Federal Court Case Management System

Feb. 2021 - Apr. 2021

- Designed, implemented, and tested a web application, in a team of 4, that will serve as the Federal Court's Vancouver office's proposal for a new case management system
- Developed the front end with vanilla HTML/CSS/JS and used Flask to connect to our back end
- Integrated a MySQL database as our back end and performed database normalization

### Practical Parent Android app

Oct. 2020 - Dec. 2020

- Developed an Android app using MVC with Java in a team of 4, that aims to help with raising children through features such as guided (visual and audio) meditation, a chore/task tracking system, and more
- Employed a Scrum development process over 3 iterations which allowed for the opportunity to experience a complete software development life cycle, from requirements engineering to product maintenance

## TECHNICAL SKILLS

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### Languages

Python, C++, C, Java, Javascript, Bash, RISC-V Assembly, Swift, HTML/CSS, SQL

### Technologies & Tools

React, Node, Express, Flask, MySQL, MongoDB, MATLAB, Appium, Newman/Postman, LaTeX, JUnit5, Git, CI/CD (Jenkins, Travis)

### Operating systems

Windows 10, Mac OS, GNU/Linux (Ubuntu)

## NON-TECHNICAL WORK EXPERIENCE

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### Burnaby Barracudas Summer Aquatics Club

*Co-Head coach, Director of Competitive groups, Senior group lead coach*

May 2020 - Aug. 2020

- Managed all 3 competitive groups which involved working with 50+ swimmers and 2 other coaches
- Planned and supervised two competitions that abided by BC's COVID-19 provincial health regulations

## EDUCATION

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### Simon Fraser University

September 2018 - Present

*B.Sc Computer Science. SFU Men's Varsity Swimming alumni.*