

MICAH LAU

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TECHNICAL WORK EXPERIENCE

FORM Athletica

May 2021 - Dec. 2021

Software Development Engineer in Test Intern (Embedded Systems)

- Developed multi-threaded Python scripts for testing new device firmware releases and validating data transmission to/from our mobile apps by leveraging Appium and various endpoints on FORM's API
- Implemented new features for our file transfer command line interface, which is used by developers for interactions with the device firmware such as configuring user data and transferring protobufs
- Integrated automation scripts into existing CI/CD pipelines by creating and configuring Jenkins jobs, which increased the embedded systems team's testing efficiency

PROJECTS

X Swim Team API and iOS app

Oct. 2021 - Jan. 2022

- Prototyped a web API using Python and Flask-RESTful which provides various endpoints for querying a MySQL database that stores data commonly used by swim teams
- Implemented a fully functioning REST API, based on this prototype, using Node, Express, a MongoDB database, and JSON Web Tokens for authorization
- Developed an iOS app that queries the database using this API, then displays the resulting data in a user friendly manner

Federal Court Case Management System

Feb. 2021 - Apr. 2021

- Designed and implemented a web application using HTML/CSS/JS and Python/Flask, in a team of 4, that will be used in the Federal Court's Vancouver office's proposal to replace the old case management system currently in use
- Optimized SQL queries while performing database normalization on a MySQL database in order to increase the speed of the more complex queries by almost 50%

Practical Parent Android app

Oct. 2020 - Dec. 2020

- Employed a Scrum process in a team of 4, over 3 iterations, to develop an Android app with Java that aims to help parents and daycare workers with taking care of young children
- Implemented key features of the app including a custom coin flip animation and guided meditation (visual and audio)

TECHNICAL SKILLS

Languages

Python, C++, C, Java, Javascript, Bash, HTML/CSS, Swift, 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

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 2 of the first swim competitions held amidst BC's COVID-19 health regulations

EDUCATION

Simon Fraser University

Anticipated graduation: Summer 2023

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