

MICAH LAU

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TECHNICAL WORK EXPERIENCE

FORM Athletica

May 2021 - Dec. 2021

Software Development Engineer in Test Intern

- Developed then integrated multi-threaded Python scripts into existing CI/CD pipelines by creating and configuring Jenkins jobs, which improved testing coverage and efficiency of new device firmware releases
- Implemented new features on FORM's internal file transfer command line interface, which is used by developers for interactions with the device firmware such as configuring user subscriptions
- Collaborated with web and product team members in order to automate validation of subscription-based features, by leveraging App Store Connect/Google Play Console, Newman, and various endpoints on FORM's API, which helped ensure a smooth pivot into FORM's subscription-based revenue model

PROJECTS

X Swim Team REST API and iOS app

Oct. 2021 - Jan. 2022

- Prototyped a web API using Python/Flask and a MySQL database, then implemented a fully functioning REST API, based on this prototype, using Node and Express; developed an iOS app that uses this API to make queries, which allows coaches, parents, and swimmers to see data commonly used by swim teams in a user friendly manner
- Migrated data to a MongoDB database by carefully mapping existing relational data models to NoSQL schemas, which improved scalability and query processing times

Federal Court Case Management System

Feb. 2021 - Apr. 2021

- Designed and implemented a full-stack web application which will be used in the Federal Court's Vancouver office's proposal to replace the old case management system currently in use
- Optimized and improved overall SQL query speeds by almost 50% by performing database normalization on a MySQL database while working closely with Federal Court officers to define the probabilities of specific federal court members or case documents being used in said SQL queries

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
- Developed key features 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.