

Summary

- Computer Science new grad with solid software development and debugging skills acquired from co-op and projects
- Experience with agile development process and Scrum practice
- Solid understanding of data structures and algorithms, design patterns, operating systems, networking, databases, computer architecture and testing methodologies

Technical Skills

Programming Language: Java, C, C++, Python, T-SQL, MySQL, HTML, CSS, JavaScript, Haskell, Go

Frameworks : Spring Boot, Node.js, Selenium, TestNG, JUnit, Gtest, Spark

Hardware: BeagleBone Green

IDE: IntelliJ, Clion, Android Studio, WebStorm

Data Science: NumPy, pandas

Tools: Valgrind

Others: jQuery

Professional Experience

Software Developer Analyst

Sept 2017– Dec 2017

British Columbia Automobile Association - Burnaby, BC

- Created functional and integration automation testing scripts written in **Java 8**
- Wrote **T-SQL** queries for accessing database and **JSON** files in testing scripts
- Used **TestNG** and **Cucumber** frameworks to support **Selenium** under **Page Object Model**
- Manually resolved web driver issue that it did not scroll down web-pages
- Wrote test cases for the feature that allowed potential members to change age before purchasing

Personal Projects

Student Course Management System (ON-GOING)

Jan 2020 – Present

- Designed a multifunctional system using Spring Data JPA and MySQL for students to manage studies including course registering along with a Tic-tac-toe game
- Created an Android App to consumes the REST API communicating with the server
- Infrastructure: Spring Data JPA, MySQL, Android-Java 8, REST API, Retrofit

BeagleBone Beat-Box Application

June 2018 - July 2018

- Used **accelerometer**, **joystick** to play music on the BeagleBone along with a **Node.JS** Web interface
- Technologies: C, BeagleBone Green, thread synchronization, Node.JS, UDP, JQuery

Embedded Sorting Program

May 2018 - June 2018

- Wrote a C program running the BeagleBone that sorts arrays and listen to commands
- Zen cape's potentiometer allows the user to select the size of array to sort
- Zen cape's 2-character (14-segment display) to display the number of arrays sorted per second
- Technologies: C, BeagleBone Green, thread Synchronization, UDP

Group Projects

[Immersive Worlds Command-Driven Game](#)

Jan 2019- April 2019

- Developed a Command-Driven gaming system using modern C++ (C++ 17) with a web interface
- Continuously designed the infrastructure and delivered features following agile process
- Worked effectively in a group of 9 and managed the complexities and challenges
- Project Infrastructure: C++17, GitLab CI, Boost, JSON, Google Test, CMake, SQLite3

[Embedded System Project](#)

May 2018 - Aug 2018

- Designed a system that uses electric microphone amplifier to detect claps and play different LED animations and brightness levels
- Utilized Adafruit Neopixel C library to manipulate the color and brightness of the LED strip
- Wrote Node.js app to listen a C program on BeagleBone for claps through UDP and push to the Firebase, with second Node.js app listening to the database and send to Arduino through serial port
- Use facial recognition by an IOS camera and Android app to update and test Firebase connection

[The Walking School Bus Android Application](#)

Jan 2018 - April 2018

- Created a multi-user Android App in a group of 4 that interacts with a Spring boot server for The Walking School Bus to support potential users
- Implemented features: registering, Log-in, Log-out, profile editing, monitoring, Walking under Google map- create, view, join group, GPS location, messages, gamification, permissions etc.

Education

BSC: Computing Science

Sept 2014 – June 2019

Simon Fraser University - Burnaby, BC, Canada