Fred Wu

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Technical Skills

- **Programming Language:** Java, C, C++, Python, T-SQL, JavaScript, Haskell, Go
- **Frameworks**: Spring Boot, Node.js, Selenium, TestNG, JUnit, Gtest, Cucumber, Spark
- **Hardware**: BeagleBone Green
- **Data Science:** NumPy, pandas

Work History

Software Developer Analyst Sept 2017– Dec 2017

BCAA - Burnaby, BC

- Created functional and integration automation testing scripts written in **Java**
- Wrote **SQL** queries for accessing database and **JSON** files in testing scripts
- Used **TestNG** and **Cucumber** frameworks to support **Selenium** under **Page Object Model**

Academic Projects

Immersive Worlds Command-Driven Game

- Developed a system that allows clients to create immersive, interactive, customized worlds
- Continuously designed the infrastructure using appropriate patterns to adapt required features
- Continuously contributing Unit Test using Google Test and Google Mock.
- Technologies: C++17, CMake, Boost library, Unit Test, Git, CI, SQLite3.

The Walking School Bus Android Application

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

Embedded Sorting Program

- Wrote a C program on the target that sorts arrays and listen to a UDP socket for 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

BeagleBone Beat-Box Application

- Used **accelerometer**, **joystick** to play music on the target
- Create a **UDP** interface which allows control of the beat box application
- Created a **Node.JS** Web interface that allows the user to directly change beats, volume, tempo
- Technologies: C, BeagleBone Green, thread synchronization, Node.JS, UDP

Dragon-Seeker Android Game

- Wrote a game that has different settings with saved history, animations, sounds, pop-ups, etc

keyboard-driven Maze Game

- Wrote a Java program using Swing that allows user to play with glorified GUI

Spring Boot Tic-Tac-Toe App

- Created a Java Spring Boot server that generates REST API on server-side and an Android App that talks to the server through Retrofit

Wikidata, Movies, and Success

- Used NLP techniques to analyze and predict the of movies' success using pandas and NumPy
- Ran classification algorithms Bayes, SVC, KNN and compare accuracy
- Technologies: Python 3, Data Science, Machine learning, NLP

Education

BSC: Computing Science Sept 2014 – Apr 2019

Simon Fraser University - Burnaby, BC, Canada