**JERRY FAN**

**|| Third year student || Computer Science and Statistic combined major ||**

**Summary**

**Experienced:** Java, C, C++, Scripting language, Git

**Familiar:** Assembly language, Multithreading, Logisim (circuit design tool), Linux, Matlab

**acedemic projects**

## IMAGE MANIPULATION *November 2017*

* Written in C++ to implement a quad-tree data structure, each node may have zero or four children, to store a given image
* Generating a quad-tree from a given image
* Generating an image from a given quad-tree
* Returning a pixel from a given coordinate
* Performing a 90 degrees rotation on a given quad-tree
* Compress a given quad-tree by comparing component-wise average colour of a node to all leaves of subtree of that node

**CIRCUIT DESIGN** *March 2017*

* Using Logisim to design circuits, such as multiplexes, sequential circuits, and state machines
* Implemented using circuit board, breadboard, and integrated circuits
* Using the probe to debug the circuit

## My Transit app *November 2016*

* GPS mobile application based on core Java which displays bus routes and upcoming bus schedules
* Using mobile development with Android emulator, Genymotion
* Basic parsing with JSON and XML
* Experience with test-driven development JUnit
* Experience with version control SVN

**personal projects**

## My snake game *December 2017 – April 2018*

* Introductory game to the Godot Game Engine environment
* Coding with Godot’s own scripting language, GDScript, to implement game logic
* Using the 2D physics engine to allow collision detection
* Editing audio files with Audacity to create sound effects and background music
* Using user interface components to create the game menu GUI
* Using Git version control system

## AUTOMATED RUNESCAPE SCRIPTS *March 2017 – February 2018*

## Created personalized automated scripts for a popular Massive Multiplayer Online Role Playing Game, Runescape

## Written in Java using pre-existing third party API to automate user inputs

## Implementing state machine logic to generate proper response and replicating in-game behavior patterns

## Making correct decisions when encountering different stimulus

* Implementing JFrame class to create a simple GUI to increase user experience and robustness of the script

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**Education**

**UNIVERSITY OF BRITISH COLUMBIA** **Vancouver, BC**

*Faculty of Science – third year level*

* Combined major in Computer Science and Statistics
* Co-op program starting September 2018

**other work experience**

## THOMPSON COMMUNITY CENTER Richmond, BC

*Summer Day Camp Leader, Children Basketball Instructor Summer of 2017, 2016, 2015*

* Organizing and leading physically active games and crafts for approximately 25 children in different age groups
* Creating a supportive and positive environment for every child
* Cooperating with a diverse and energetic team to quickly solve different issues and effectively communicating with parents
* Interviewing potential volunteers and discussing their performance with volunteer coordinators
* Guiding volunteers to perform routine tasks and providing direction to better assist camp leaders with large activities

**interests and hobbies**

I started playing after school soccer at a young age, and it has always been my favourite sport. I had the opportunity to joining the Richmond Metro League in 2008 and played competitively for the next 6 years. Our team became the district championships and placed second in provincials in 2010. Once I stopped playing soccer competitively, I continued to maintain an active lifestyle through weight lifting and boxing. Dedicating my spare time with the UBC boxing club in 2015, I was promoted to the position of assistant coach a year later. I have successfully taken part in a few charity fights organized by the UBC boxing club with proceeds going towards the Eastside Boxing Youth Program. Aside from being physically active, I also enjoy learning my favourite tunes from *the Beatles* to *Ed Sheeran* on the acoustic guitar.