

VICKI FU

UBC Computer Engineering Student

@ vicki.wfu@gmail.com

📞 778-708-0170

📍 Richmond, BC, Canada

in vickifu527

🔗 viickif

🌐 vickifu.com

SKILLS

Languages | Java, C/C++, Python, HTML/CSS, JavaScript, SQL

Frameworks & Tools | Git, Flask, React.js, Node.js, Bootstrap

Other | Automated/Unit Testing, Agile/Scrum, JIRA

EXPERIENCE

Sophos | Software Engineer Co-op

📅 May 2019 – Sept 2019

🔧 C/C++, Python, Lua, Git, Agile, JIRA, Jenkins, PyTest, Qt

📍 Vancouver, BC

- Leveraged cybersecurity and networking principles to develop features for the Intrusion Prevention System (IPS) while placing a strong emphasis on object-oriented programming best practices and performance optimization
- Extracted and propagated threat detection events received by the IPS to the UI as attack alerts using C++
- Customized an open source network intrusion detection system using C/C++ to parse and process additional properties in its policy rules to integrate special detection types that do not interfere with network traffic
- Developed an internal C++ Qt desktop tool simulating future/in progress features that enabled developers to begin working on dependent code 1 month in advance
- Designed, implemented and maintained automated Python tests to extend functional coverage on all platforms
- Effectively articulated technical challenges and design decisions during code reviews and feature kickoffs

UBC Code the Change Foundation | Web Developer Member

📅 Jan 2019 – May 2019

🔧 HTML/CSS, SQL, PHP, JavaScript, Bootstrap

📍 Vancouver, BC

- Implemented the front end of a dynamic website that maps Vancouver housing rental information, features user accounts and processes tenant eviction/rental requests using HTML/CSS and JavaScript
- Built a custom SQL and PHP plugin to streamline the site database management process

PROJECTS

Algorithmic Art Image Editor

🔧 C++

- Applied image compression, space partition and statistical algorithm optimization concepts to recreate images with a blocky artistic effect
- Generated animation GIFs of flood filling a closed region of an image with patterns using graph search algorithms
- Rendered the results of applying filters/watermarks to images and weaving/rolling/reversing image block chains by manipulating pixel properties and doubly linked lists

Smart Text Similarity Analysis

🔧 Java, Microsoft Azure API, JUnit

- Measured textual similarity and overall document tone using a combination of Azure text sentiment scores and divergence metric computations
- Split a list of documents into groups by author even without supplying any insight into who the author is up front

DBLite Database Management

🔧 Java, Multithreading, ANTLR, JUnit

- Implemented a subset of SQL that executes database operations on JSON tables and captures database snapshots by parsing structured user commands/queries
- Used socket and multithreaded programming to create client and server data types that allow multiple users to interact with a database over a network while ensuring safe concurrency

Clash of Snakes Multiplayer

🔧 JavaScript, Node.js, Express.js, Socket.IO

- Developed a 2 player online game with synchronized keyboard controlled movements and food spawns using Socket.IO to establish bi-directional communication between web clients and servers

EDUCATION

University of British Columbia | B.ASc in Computer Engineering

📅 Sept 2017 - May 2022

📎 A- Cumulative Average

📍 Vancouver, BC

- 3rd year student, enrolled in a Co-op program