# RICHARD TIAN computer Engineering - richardyjtian@hotmail.com

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### **SKILLS**

Python, C, C++, C#, Java, SQL, JavaScript, HTML, CSS, JSON, XML Languages:

**Development Tools:** Visual Studio, Unity3D, Android Studio, Eclipse, Atom, Vim, Git

**Operating Systems:** Linux, Windows, MacOS

**Interpersonal Skills:** Problem Solving, Leadership, Teamwork, Communication

#### **EDUCATION**

#### **University of British Columbia**

Expected Graduation: April 2022 Bachelor of Applied Science - Major in Computer Engineering, Minor in Commerce

Dean's Honour List standing of three years

Relevant Coursework - Data Structures and Algorithms, Artificial Intelligence, Machine Learning, Computer Vision, Database Systems, Computer Networking, Cryptography, Operating Systems, Embedded Systems

#### **University of Washington**

September 2019 – June 2020

Exchange

- Corbett Fellowship Scholarship Recipient presented to two UBC students recognized for top academic standings and clear educational goals (jsis.washington.edu/canada/people/richard-tian/)
- Walter H Gage and Elsie M Harvey Education Abroad Scholarship Recipient presented to UBC students nominated for a record of academic excellence

#### **WORK EXPERIENCE**

#### **Provincial Health Services Authority**

May 2019 - August 2019

Software Developer Intern

- Established a distributed system to optimize BC healthcare supply chain processes through RFID automation
- Designed a RESTful API with Python and Flask for intuitive user setup of RFID technology and to handle backend transactions with a Microsoft SQL Server
- Conducted case studies and presented a business case to stakeholders and executives to illustrate tangible benefits of adopting RFID technology and attain project support
- Created a technical documentation outlining the design procedure and agile methodology employed

## TECHNICAL PROJECTS

Hac-A-Pac March 2020 - June 2020

UW Capstone Project - Team of Three

- Developed a Pac-Man themed, create-your-own-level game accessible for children with disabilities
- Utilized Unity3D to create an elegant UI and fluid game engine for an enjoyable gaming experience
- Implemented customizable game speed, difficulty, and input options to cater to varying user needs
- Consulted and interviewed project stakeholders to ensure cognitive and motor needs were met

#### **Vancouver Translink Bus Texting App**

July 2018 - August 2019

Personal Project

- Developed an Android app to automate checking next bus arrival times at bus stops
- Designed Java classes to abstract app elements and allow for efficient interactions between app components
- Utilized an SQLite database to store, organize and manipulate data based on user needs
- Gained a solid understanding of the Android app structure, debugging tools, and SMS and location features

#### **Store Wayfinder**

January 2019 - March 2019

UBC Capstone Project - Team of Five

- Created an embedded system to help customers navigate an unfamiliar store
- Modified Verilog source code to hardware accelerate graphics and achieve exponential speedup
- Implemented a dynamic, multi-page shopping list using C to interact with the SDRAM of an FPGA
- Integrated OpenCV framework to use machine learning and computer vision in deciphering location points
- Adhered to strict programming practices, including Git version control, to ensure maintainability of code