

SOFTWARE DEVELOPER · COMPUTER SCIENCE MAJOR AND MATHEMATICS MINOR · UNIVERSITY OF BRITISH COLUMBIA

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## Education

## The University of British Columbia

Vancouver, BC

Sep. 2017 - Apr. 2022

Bachelor of Science in Computer Science, Minor in Mathematics, 4th Year

• Cumulative Average: 93% (3.9/4.0 GPA)

# **Experience**

Orbis Investments Burnaby, BC

SOFTWARE DEVELOPER INTERN

• Developed various features, improvements, and unit tests to a RabbitMQ publishing application written in C, .NET, and Angular

- Designed and implemented an autofill form feature reducing the time taken to copy and republish messages from a few minutes to < 1 second
- · Participated in code reviews and gained domain knowledge about investment management and finance as part of the Global Platforms team

Microchip Technology

Burnaby, BC

Jun. 2020 - Present

SOFTWARE VERIFICATION ENGINEER CO-OP

Jan. 2019 - Apr. 2019

- Independently designed and developed an internal test reporting tool using Python, HTML, CSS, and JS to aggregate and visualize daily test data; iteratively improved on the design with user feedback; reduced debugging times for 15-20 engineers in Burnaby and Shanghai
- Automated identification of passing tests using Python scripts on Jenkins CI
- Improved workflow efficiency by automating the detection of failing software check-ins
- Applied Agile methodologies in a scrum-based software development team

# Projects\_\_\_\_\_

### **Video Game Database**

https://github.com/jugrajb/proton

- · Designed and implemented a database application for browsing and reviewing video games with a React frontend
- Utilized PostgreSQL and Java Spring Boot to set up data access, user authentication, and RESTful APIs; stored images on AWS S3

## **Dog Breed Identification App**

https://github.com/irvinodjuana/pet-id

- · Created a machine learning-based dog breed classifier and web application; used transfer learning on pre-trained ImageNet models with Keras
- Utilized Python and Flask to set up a backend server and developed frontend UI with React

## **Voronoi Diagrams & Image Compression**

code available upon request

- Implemented a program in C++ to construct voronoi diagrams of an image using DFS/BFS algorithms
- Exercised pair programming and created an image compression algorithm with a QuadTree data structure

### **Battleship**

https://github.com/irvinodjuana/Battleship

- · Created a web-based battleship game and implemented three different enemy AI strategies in HTML, CSS and VanillaJS
- Wrote unit tests with Jasmine and deployed on GitHub Pages at: https://irvinodjuana.github.io/Battleship/

#### Mimic

https://github.com/ubclaunchpad/mimic

- · Helped design and implement a Python library for machine learning text generation with UBC Launch Pad design team
- Independently implemented the GRU RNN model with Keras/TensorFlow; used GitHub for version control and published library on PyPI

# **Technical Skills**

**Languages** Python · Java · C/C++ · TypeScript · JavaScript · C# · SQL · HTML/CSS

**Tools & Frameworks** Linux · Git/GitHub · .NET · Angular · Node.js · Jenkins CI · Subversion · JIRA

## **Honours & Awards**

2020 **UBC Sauder Sponsor Prize**, Most Sustainable Project - nwHacks Hackathon

Vancouver, BC

2019 **Trek Scholarship**, Top 5% of undergraduate class, faculty, and school

Vancouver, BC

2018 **Trek Scholarship**, Top 5% of undergraduate class, faculty, and school

Vancouver, BC