Irvino Djuana

Software Developer · Computer Science Major and Mathematics Minor · University of British Columbia

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Education

The University of British Columbia — *Vancouver, BC*

Bachelor of Science in Computer Science, Minor in Mathematics, 4th Year — *Sep. 2017 - Apr. 2022*

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

Experience

Orbis Investments — *Burnaby, BC*

Software Developer Intern — *Jun. 2020 - Dec. 2020*

- Improved copying and republishing messages in a RabbitMQ message publishing application from taking a few minutes to < 1 second
- Implemented date selection and various features in Angular and TypeScript for public-facing performance charts across 14 funds in 7 countries
- Developed event-driven backend code and RESTful APIs in C# for automating document publishing and aggregating fund transaction flows
- Key technologies used: C#, .NET, Angular, Microsoft SQL Server, RabbitMQ, TypeScript, Git, TeamCity, IIS

Microchip Technology — *Burnaby, BC*

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
- Improved workflow efficiency by automating the detection of failing software check-ins and passing tests using Python scripts on Jenkins CI
- Key technologies used: Python, JavaScript, Subversion, Jenkins CI, HTML, CSS, Linux, Bash, XSLT

Projects

Crypto Arbitrage Finder — *https://github.com/irvinodjuana/crypto-arbitrage*

- Created a Java application which finds triangular/circular cryptocurrency arbitrage opportunities using the Bellman-Ford algorithm
- Connected to live Binance market data with WebSocket streaming and searches through 350+ currencies and 900+ trading pairs in 800ms

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

Battleship — *https://github.com/irvinodjuana/Battleship*

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

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

Mimic — *https://github.com/ubclaunchpad/mimic*

- Helped design and implement a Python library for machine learning text generation with UBC Launch Pad software engineering club
- Independently implemented the GRU RNN model with Keras and 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 · RabbitMQ · Jenkins CI · JIRA

Honours & Awards

2020 **Computer Science Scholarship**, Awarded for academic performance in UBC Computer Science — *Vancouver, BC*

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

2018-19 **Trek Excellence Scholarship**, Top 5% of undergraduate class, faculty, and school — *Vancouver, BC*