

Skills & Interests

- Languages: Java, Python, Golang, JavaScript, TypeScript, C/C++, Bash, HTML & CSS, SQL, Terraform/OpenTofu
- Libraries & Frameworks: REST APIs, Gradle, JUnit, Pytest, Selenium, Flask, Django, Node.js, React, Cypress
- Tools: Git, SSH, Linux, Docker, Kubernetes, Jenkins, GitHub Actions, Grafana, Google Cloud, AWS, IBM Cloud
- Interests: Landscape Photography (5 yrs), Drones (Advanced License), Cycling (2700 km/yr), Travelling (9 countries)

Education

University of British Columbia

Expected May 2026

Bachelor of Applied Science - Computer Engineering

Dean's Honour List - CGPA: 87.7% | 3.8 / 4.0

Awards: UBC Presidential Scholars Award (\$40,000), ECE Undergraduate Scholarship (\$2,500)

Experience

IBM Software Developer Intern Jan 2024 - Present

Markham, ON

- Migrated all Kubernetes monitoring from Sysdig to Instana, saving \$4,000/month and streamlining overall alerting
- Developed a custom JupyterLab Docker image and TypeScript API proxy service to allow 7 million users free access to the OpenAI and watsonx.ai APIs
- Engineered automatic vulnerability remediation and dependency updates across our codebase with the use of Dependabot, Mend, and custom GitHub Actions workflows, reducing manual updates by 95%

D-Wave Quantum DevOps Co-op

May 2023 - Sep 2023

Burnaby, BC

- Implemented a new Kubernetes-based development platform utilizing Terraform to automate the setup and define infrastructure as code, simplifying programming environments for over 80 individuals and boosting efficiency by 20%
- Centralized company Docker images in a single repository that automated all build, testing, and publishing steps with only 6 lines of configuration per image, eliminating redundant **Jenkins** pipelines and improving overall organization
- Developed Grafana dashboards integrated with Prometheus metrics, enabling real-time monitoring of service health and key statistics, resulting in improved visibility and informed decision-making
- Pioneered a Terraform provider template in Golang which allowed multiple internal providers to be created and automatically deployed to Artifactory for general use

UBC Uncrewed Aircraft Systems. Student Design Team Captain // Software Lead // Software Developer

Sep 2021 - Present Vancouver, BC

- Led a team of 70+ cross-discipline students and managed a budget of \$50,000 to compete in 2 competitions annually
- Revamped the team website using an opensource Golang framework (Hugo) to decrease load times from 10s to 0.7s
- Improved the cross-platform compatibility of our simulation software with Docker containers and made multiple GitHub Actions workflows to eliminate manual builds and deployments (<u>UASITL</u>)
- Reduced image streaming latency from 12s to 1s with a Bash script running on an onboard Linux microcomputer

Projects

3FA - Multi-Factor Authentication System (GitHub, Demo Video)

- Created a backend API in Python using Flask and SQLite to authenticate simultaneous users and serve files
- Designed and implemented the authentication flow which included session and authentication tokens, encrypted communications, hashed passwords, and automatic timeouts to meet OWASP security standards
- Reduced manual work by 7x with GitHub Actions workflows to automate testing for all parts of the system, create app releases and executables, package the backend as a Docker image, and automate dependency updates
- Used Pytest to achieve 98% line and branch coverage as well as set up Postman to improve manual testing

Multi-Client Server (Description), CPEN 221

- Constructed a Java server supporting multiple simultaneous clients capable of interacting and fetching Twitter data
- Enabled dual-server routing so that either server can be connected to and no interruptions occur if one goes offline
- Followed security protocols by hashing and salting all passwords and encrypting incoming and outgoing data via AES