

EDUCATION

University of British Columbia, BAsC Computer Engineering 09/2014 – 08/2019

- Current recipient of Trek Excellence Scholarship: **top 5%** of Computer Engineering.

SKILLS

- Languages: **Python, Java, Go, JavaScript**, Ruby, Scala, C++, Swift, Bash.
- Technologies: Docker, AWS, GCP, Terraform, Ansible, Kafka, React, Vue, REST, JSON.

EXPERIENCE

Shopify, Software Engineering Intern – Data Infrastructure 01/2018 – 08/2018

- Developed a full-stack **Ruby on Rails** application to visualize deployments, resources, and permissions; created metrics and alarms to minimize security risks.
- Built a **Scala** service to validate 400,000 SQL queries against bi-weekly PrestoDB upgrades to detect backwards compatibility breaks and performance regressions.
- Shipped a macOS application to simplify authentication from 6 to 2 steps for data services.
- Created a CLI to manage deployments, enabling self-served services such as Presto, Mode, YARN, Azkaban for teams.

Hootsuite, Software Developer Intern – Production Operations 09/2017 – 12/2017

- Embraced immutable infrastructure for internal services by using: **Terraform** to develop IaC (Infrastructure as Code), Ansible to configure **AWS** instances, and Packer to build **Docker** images.
- Automated resource access management when onboarding and offboarding developers to reduce manual labor.
- Created Role-Based Access Control for services to enable security and privacy compliance.

University of British Columbia, Undergraduate Researcher 05/2017 – 09/2017

- Reduced 50-100% overhead in CPU tracing by DINAMITE, a software performance analysis tool, through using the RTDSC instruction to capture timestamps.
- Established **Java** support for DINAMITE by implementing CPU tracing using JVM TI to communicate with C libraries, ASM to inject bytecode instructions, and Java's instrumentation API to attach a Java agent.

Safe Software, Software Developer Intern – Platforms 05/2016 – 12/2016

- Migrated C++ compiler from VS 2015 to 2017 for 800+ projects, enabling C++11 features.
- Implemented the Teradata format using Java (JDBC), allowing clients to read from and write to Teradata databases.

PROJECTS

UBC Course Schedule Creator

08/2017 – 04/2018

- Built a full-stack application using **Vue**, **Go**, and **Firebase** with **CI/CD** to output schedules given input courses.
- Automated scraping data for all courses at UBC into **Firebase** using **AWS Lambda**.

Spotty

05/2018

- Won 1st place out of 300+ hackers at Ryerson University Hacks 2018.
- Created an IoT solution allowing hosts to advertise their private parking spaces.
- Integrated **Raspberry Pi**, **Alexa**, cameras, sensors to a **NodeJS** and **React Native** app.

Review Me

02/2018

- Won the **AWS** prize out of 500+ hackers at Hack the Valley 2.
- Created a tool to remind code reviewers to review pull requests via **SMS/Slack** messages.
- Implemented frontend using **React** and backend using **Flask**, **GitHub API**, **Slack API**, **AWS**.

Atlantis – open-source contribution

10/2017 – 12/2017

- Implemented **Slack** integration, enabling Atlantis servers to notify **Slack** channels.

Toy Gun Turret

01/2017 – 04/2017

- Integrated a camera, LCD screen, Wi-Fi/Bluetooth chip, motors to track objects, rotate, take pictures, and fire projectiles.
- Implemented object tracking and motion detection using **OpenCV**.

UBC Snowbots – engineering student team

09/2014 – 09/2016

- Built a robot that navigates through an obstacle course, placing 4th/42 teams at an international competition.
- Integrated **GPS** firmware to relay real-time data for software driver to make decisions.