

SKILLS (bold skills indicate proficient knowledge)

- Languages: **Java, C++, Python, C**, SQL, Javascript, Bash
- Technologies: **Git, REST, JSON, Android, AWS, Terraform, Ansible**, Firebase, Vue, Teradata
- Environments: **Linux, Windows, macOS**, Visual Studio, Android Studio, IntelliJ, VSCode, Vim, Unity

EXPERIENCE

Shopify – *Python, Ruby* Jan 2018 – Apr 2018

Software Developer Intern (Production Engineering)

Sept 2017 – Dec 2017

Hootsuite – *Python, Go*

Software Developer Intern (Production Operations and Delivery)

- Automated resource access management for onboarding and offboarding developers to reduce operations toil
- Developed role-based access control for developer and production services to simplify compliance auditing
- Embraced immutable infrastructure for internal services by using Terraform to develop infrastructure as code, Ansible to configure EC2 instances, and Packer to build AMIs and Docker images

May 2017 – Sept 2017

University of British Columbia – *Java, C*

Undergraduate Researcher

- Developed DINAMITE, a software performance analysis toolkit for C and C++ programs under Dr. Alexandra Fedorova
- Reduced 50-100% overhead in CPU tracing by leveraging 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

May 2016 – Dec 2016

Safe Software – *C++, Java*

Software Developer Intern (Platforms)

- Upgraded C++ compiler (VC10 to VC14) for over 800+ projects enabling C++11 features for all developers
- Wrapped 3rd party libraries and re-design interfaces to fix DLL boundary issues
- Implemented the Teradata format using Java (JDBC), allowing customers to read from and write to Teradata databases
- Designed scalable solutions for bugs, documented bug-fixes, and created regression tests to reduce technical debt

PROJECTS

UBC Course Schedule Creator – *Python, Javascript*

Apr 2017 – Present

- Componentized schedules, courses, and input fields using Vue for the front end
- Outputted all possible schedules given input courses as a REST endpoint using Amazon API Gateway and AWS Lambda
- Scraped data for every course at UBC with Python (requests, BeautifulSoup, lxml) using Firebase Database as data store

Mar 2017 – May 2017

Food Shake – *Java (Android)*

- Solved the question "Where should we eat?" by randomly selecting a nearby restaurant upon shaking the phone
- Created an Android library for wrapping Yelp's API using Retrofit and GSON
- Integrated Yelp's and Google Map's API to display restaurant details, pictures, and directions

Jan 2017 – Apr 2017

Toy Gun Turret – *C, Java (Android), Verilog*

- Integrated a camera, LCD screen, Wi-Fi/Bluetooth chip, motors to track objects, rotate, take pictures, and fire projectiles
- Designed a reliable Bluetooth communication protocol between the Android device and turret
- Implemented object tracking and motion detection using OpenCV

Sept 2014 – Sept 2016

UBC Snowbots – *Python, C, C++*

- Built an autonomous robot that navigates through an obstacle course – placed 4th (2015), 5th (2016) in design at IGVC
- Integrated GPS firmware to relay real-time data for software driver to make decisions
- Implemented algorithm to calculate distance and angle towards a given GPS waypoint

Dec 2015 – Sept 2016

Blackjack Game – *Java*

- Designed the GUI using JavaFX; Implemented dealer AI, wagers, double down, split, and high score mechanics

EDUCATION

University of British Columbia – **BASc Computer Engineering (Dean's Honour List)**

Sept 2014 – Nov 2019

- Completing 4/5 work terms; Available for 4 months beginning May 2018
- Current recipient of Trek Excellence Scholarship for achieving top 5% of domestic students