Nicholas Wu

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EDUCATION

University of British Columbia, Bachelor of Applied Science, Computer Engineering   Sept 2014 – Aug 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   Jan 2018 – Aug 2018

- Created a Ruby on Rails application to visualize deployments, resources, and permissions of Shopify's Google Cloud infrastructure; 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 backward compatibility breaks and performance regressions.
- Shipped a macOS application to simplify authentication from 6 steps to 2 steps for data services.

Hootsuite, Software Developer Intern - Production Operations   Sept 2017 – Dec 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 on/offboarding developers to reduce manual labour.
- Created Role-Based Access Control for services to enable security and privacy compliance.

University of British Columbia, Undergraduate Researcher   May 2017 – Sept 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   May 2016 – Dec 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

Spotty: Won RUHacks 2018 for an IoT solution allowing hosts to advertise their private parking spots.

Review Me: Won the AWS prize at HTV 2018 for a tool to remind reviewers to review code via Slack and SMS.

UBC Course Schedule Creator: Built a full-stack application to output all possible schedules given input courses.

Atlantis (open-source): Implemented Slack integration enabling Atlantis servers to notify Slack channels.

Food Shake: Created a mobile application that randomly selects a nearby restaurant upon shaking the phone.

UBC Snowbots: Built a robot to navigate around an obstacle course, placing 4th at an international competition.