

# Felix He

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Award-winning competitive programming team member, with a wide breadth of computer science skills developed through hackathons, competitions, internships, and extracurricular personal projects. Expected to graduate with a Combined Bachelor's in Business and Computer Science from the University of British Columbia in April 2021.

Personal projects spanning various tools and languages can be found at <https://www.github.com/felixhe97>.

Programming Languages and Tools: C, C++, JavaScript, Python, Ruby, Java, SQL, Terminal, \*nix, Git, Docker

## Work Experience

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### Software & Data Engineering Intern, Co-op

JUNE 2020 - AUGUST 2020

KeepTruckin, Inc. - App Marketplace

- Engineered high-bandwidth data pipeline and ETL transformations within distributed data lakes and warehouses, by using Python, Apache Spark, Snowflake, Airflow, Qubole, Looker, Fivetran, and Redash.
- Synced the PostgreSQL database to Tableau by creating a Ruby REST library within the Rails backend of the main application, in order to attach callbacks that handle dynamic migration of account information.

### Software Development Student, Co-op

MAY 2019 - AUGUST 2019

BlackBerry Limited - Security & Firmware

- Modernized the security-firmware build system from Kati/Makefile to Soong/Bazel/Ninja, and created a command-line utility with C and Graphviz to visualize the migration's updated build dependencies.
- Removed errors and refactored Android native vendor code, particularly within the bootchain-level event-scheduling system, by writing several thousand lines of C, CMocka fixtures, and unit tests.
- Achieved expertise in operating \*nix terminal tools within the Android Open Source Project's ecosystem.

### Technical Systems Analyst, Co-op

JANUARY 2019 - APRIL 2019

Royal Bank of Canada, Capital Markets - Digital Channels

- Developed a load-tested (with Apache JMeter), LDAP-authenticated API, with Node.js and Express.js, to act as middleware around an Apache Solr-based search engine serving around 60,000 visitors a day.
- Created a marketing-analytics visualization tool, with the ability to upload, archive, and manipulate tabular data files online, by using JavaScript, HTML, CSS, Batch scripts, and Microsoft SQL Server through TDS.
- Utilised XSLT and XPath to generate front-end XML transformation scripts for non-technical staff.

## Extracurriculars

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### Team Member, Division 1

NOVEMBER 2017 - PRESENT

University of British Columbia ACM-ICPC Competitive Programming Team

- Implement optimized C++ programs to solve algorithmic and mathematical programming problems.
- Notably placed 2nd out of 73 teams in the 2018 ACM-ICPC PacNW Division 2 Regionals, and in the top-third of all teams in the 2018 North American Invitational Programming Competition.