Mitchell Kember

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SKILLS

Proficient: C, C++, Java, Python, Ruby.
Familiar: JavaScript, Go, Rust, Haskell, Clojure, Bash.

EDUCATION

University of Waterloo, *Bachelor of Software Engineering, 3.97 cumulative GPA* 2014 – 2019 (expected)

EXPERIENCE

Facebook, *Dev Infrastructure team, Software Engineering Intern* • C++ Sep 2018 – present
— Working on compiler and virtual machine optimizations.

Bloomberg, *FX Idea Generation team, Software Engineering Intern* • C++, PYTHON Jan – Apr 2018
— Developed a solution for storing millions of intraday data points using Python and Cassandra.
— Implemented new user interface components in TypeScript for the Bloomberg Terminal.
— Worked on a system to distribute pricing engine load using C++ and ZooKeeper.

Facebook, *Data Warehouse Storage team, Software Engineering Intern* • C++, JAVA May – Aug 2017
— Designed and implemented a file expiration service for Facebook's data warehouse storage system.
— Took initiative to build missing end-to-end tests for another service, catching a major issue.
— Created a tool to automatically detect flaky unit tests, solving a pain point in the team's workflow.

Snowflake, *SQL team, Software Engineering Intern* • C++, JAVA Jan – Apr and Sep – Dec 2016
— Designed and built a just-in-time LLVM code generation framework from scratch.
— Implemented, tested, and documented two new SQL data types system-wide: Time and Binary.
— Wrote efficient code in the query execution engine for many new SQL functions.

Shopify, *Platform team, Software Developer Intern* • RUBY ON RAILS May – Aug 2015
— Led development on a project to connect merchants with Shopify Experts. Modelled communication data in MySQL, and wrote an algorithm to dispatch merchant requests to Experts in Ruby.
— Improved internal tools by implementing a flexible system for searching and filtering.

RESEARCH

University of Waterloo, *Research Assistant* • PYTHON Sep – Dec 2017 and May – Aug 2018
— Helped rewrite a proof-checking system in Python to be used in *SE 212: Logic and Computation*.
— Built new verification stages for proofs of program correctness, producing detailed diagnostics.

University of Waterloo, *Research Assistant* • JAVA, JAVASCRIPT May – Aug 2016
— Created parsers for proof theories using ANTLR4, and built a web front end in JavaScript.

ACHIEVEMENTS

Hack Western 2, *2nd place hackathon winner for Cirkvito, a circuit simulator web app* Nov 2015
D. Aubrey Moodie Award, *Ottawa-Carleton District School Board top scholar (99.83%)* 2013 – 2014