

Work Experience

Professional Sabbatical 2023

Attended the Recurse Center, a computer programming retreat. Selected projects:

- [Demos](#) and [games](#) written in assembly and C for the Apple II home computer
- [bas2wav](#): Rust tool to convert Applesoft BASIC source code into .wav audio
- [CHIP-8](#): retro video game system emulator, written in Rust
- [Space Invaders](#): video game for an embedded system, written in Rust

Software Engineer, Google, San Francisco June 2022 – January 2023

- Wrote CLI tools in Rust to manipulate the content of Fuchsia archive format files
- Migrated C++ code for touchscreen gesture detection to next generation graphics/input stack

Software Engineering Intern, Cruise, San Francisco Spring 2020

- Developed machine learning infrastructure in Go for a self-driving car
- Added lidar point cloud metrics to a production big data pipeline

Software Engineering Intern, Rubrik, Palo Alto Spring 2019

- Wrote production Scala code for a scalable, fault-tolerant distributed system
- Improved VM snapshot recovery performance by shortening archived diff-chains

Software Engineering Intern, NVIDIA, Santa Clara Summer 2018

- Designed and wrote embedded C++ code for the Tegra SoC platform to control clocks and resets, I²C bus functionality, and hardware security module behaviour
- Worked with and debugged QNX resource managers and Linux device drivers

Education

Research-based Master of Science, University of Toronto 2018 – 2021

Theoretical Computer Science

- Research area: distributed systems, computability in the asynchronous shared memory model
- Thesis: Every object type is equivalent to some linearizable object type

Honours Bachelor of Science, University of Toronto 2013 – 2018

Computer Science (Focus in Computer Systems, Focus in Theory of Computation)
Mathematics Minor

- Grades of 95% or higher in five graduate-level computer science courses:
Theory of Distributed Computing, Algorithm Design & Analysis, Graph Theory,
Advanced Topics in Distributed Computing, Topics in the Theory of Computation
- Grades of 90% or higher in many fourth-year computer science courses; e.g.,
Compilers & Interpreters, Advanced Computer Networks, Complexity & Computability