

EDUCATION

- **Cornell University** Ithaca, NY
Bachelors of Arts in Computer Science *Aug. 2015 – May 2019*
 - **Cumulative GPA:** 3.88
 - **Honors:** Dean's List (Fall '15, Fall '16, Fall '17, Spring '18)
 - **Relevant Coursework:** Object-Oriented Programming and Data Structures, Analysis of Algorithms, Functional Programming, Computer System Organization and Programming, Operating Systems, Database Systems, Natural Language Processing, Computer Networks, Compilers

EXPERIENCE

- **Optiver** Chicago, IL
Software Engineering Intern *Jun. 2018 - Aug. 2018*
 - **Click Trader:** Wrote an application that enables trading of derivative instruments on the NYSE Arca Options exchange, implementing the exchange's binary network protocol. Allows traders to place and modify outright and multi-leg orders, applying validation of risk limits and synchronizing trade information with internal applications. Written in C++, with unit tests written using the Google Test framework.
 - **Automated Trading Systems:** As part of the ATS team, improved performance & reliability of Optiver's automated quoting and liquidity taking HFT systems that operate on various US options exchanges.
- **Cornell University** Ithaca, NY
Teaching Assistant for CS 3110 *Aug. 2017 - Dec. 2017*
 - **Student Assistance:** Held office hours and answered questions on Piazza, assisting students with core concepts of functional programming and data structures.
 - **Grading:** Graded assignments and exams.

PROJECTS

- **Xi Compiler:** An optimizing compiler for the object-oriented language oXi (syntax similar to C), with static type checking and run-time type discrimination. Outputs x86-64 assembly code. Written in Java.
- **NBA Statistics Action:** An NBA statistics conversational bot for Google Assistant, supporting a wide variety of statistical queries, with understanding of conversational context. Uses the NBA.com API, with a Node.js backend.
- **CamI Messenger:** Asynchronous messenger client and server written in OCaml, with a GTK+ GUI. Implemented a TTMP/STOMP message broker using the LWT concurrency library.
- **PortOS:** A mini operating system written in C, with preemptive multithreading, UDP & TCP networking, and a filesystem based on UFS.
- **Thinkpad Fan Control:** CPU fan control application for Thinkpads that displays system temperatures, allowing for customizable temperature thresholds and manual control. Written in Vala, with a GTK+ GUI made using Glade.
- **Cornell Electric:** Web application using the Flask framework that visualizes Cornell's energy consumption in real time on a heat map. Uses Python to scrape the relevant online energy data. Utilizes Bootstrap, JavaScript, jQuery, and the Google Maps API for the frontend.
- **2048 Game:** An implementation of the block puzzle game 2048, written in Java, with a Swing GUI.

SKILLS & ACTIVITIES

- **Languages:** Java, C, Python, C++, OCaml, Javascript, SQL
- **Technologies:** Node.js, Flask, Git, Android, Linux, GTK+, Jenkins, Vim
- **Activities:** Cornell Photo Society, Cornell Association of Computer Science Undergraduates, BigRed//Hacks