

# Enoch Chen

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## Education

### Cornell University

B.A. + M.ENG. IN COMPUTER SCIENCE, 4.0 GPA

- Favorite Coursework: Functional Programming, Analysis of Algorithms, Operating Systems, Compilers, Distributed Systems

Dec 2023

Ithaca, NY

## Experience

### Braze | SOFTWARE ENGINEERING INTERN

June 2023 - Aug 2023

- Refactored email sending pipeline to support over a billion personalized sends per day via multiple ESPs.
- Designed and implemented efficient caching and batching heuristics to minimize network traffic.
- Unified legacy and modern code paths for improved maintainability.

### Braze | SOFTWARE ENGINEERING INTERN

June 2022 - Aug 2022

- Headed product feature enabling sandboxed execution of customer-provided JavaScript code.
- Integrated custom product-specific language features into Monaco editor with a focus on developer experience.
- Investigated and evaluated security measures against malicious use, regularly interfacing with Security org.

### Braze | SOFTWARE ENGINEERING INTERN

June 2021 - Aug 2021

- Designed and implemented distributed load testing solution for staging Kafka clusters.
- Optimized performance of message generation and delivery up to a billion messages per hour.
- Identified new potential bottlenecks in pipeline through fuzzing.

### Replenish | SOFTWARE ENGINEERING INTERN

May 2020 - Aug 2020

- Extended and refactored PostgreSQL database models to increase query efficiency.
- Developed scripts in Haskell to generate admin and customer-facing reports to vastly improve data visibility.
- Implemented custom calendar interface in Elm to facilitate shipment scheduling.

### Cornell DTI | DEVELOPER LEAD

Sept 2019 - Current

- Led and supported the technical growth of over 10 technical product managers and over 50 developers per semester.
- Directed full stack development addressing problems faced by Cornell students and faculty.
- Architected solutions for niches such as course reviews, office hours, schedule planning, and many more.
- Designed and conducted processes for recruiting, interviews, and technical onboarding for new developers.

### Cornell University | INSTRUCTOR & TEACHING ASSISTANT

Jan 2020 - Current

- Developed new course material, led discussion sections, held office hours, and graded assignments.
- Courses: Trends in Web Development (as Instructor), Functional Programming (as TA)

## Projects

### CUGL Scripting Engine | DEVELOPER

- Developed a lightweight JavaScript runtime for CUGL, a low-level C++ library created for game development at Cornell.
- Implemented complex engine-specific C++ bindings, enabling scripts to perform tasks like scene graph manipulation.
- Implemented reference counting and mark-and-sweep algorithms to automate memory management.

### Pantry Panic | SOFTWARE LEAD

- Led technical development of Pantry Panic, a real-time multiplayer tower-defense game built with CUGL.
- Built WebRTC-based P2P networking model from the ground up, solving problems like matchmaking, security, and synchronization.
- Navigated platform abstractions to provide cross-platform support for Windows, macOS, Android, and iOS.

### Various Coursework | DEVELOPER

- Built a compiler from the ground up targeting x86 with optimizations based on control flow/dataflow analysis.
- Implemented a fault-tolerant sharded key/value store backed by the Paxos algorithm.

## Skills

**Languages** JavaScript/TypeScript, C++, Java, Python, OCaml, Ruby

**Tools & Tech** React, Firebase, PostgreSQL, MongoDB, Redis, Kubernetes, Jenkins, Docker, Git