

Jonathan Cheng

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EDUCATION

CARNEGIE MELLON UNIVERSITY

MS IN ELECTRICAL & COMPUTER ENGINEERING
May 2023

BS IN ELECTRICAL & COMPUTER ENGINEERING
May 2022 - GPA: 3.8
MINOR IN COMPUTER SCIENCE

COURSEWORK

UNDERGRADUATE

- Operating Systems (C, x86)
- Cryptocurrencies
- Distributed Systems (Go)
- Computer Architecture
- Theoretical Computer Science
- Startup Software Eng. (NodeJS)
- Embedded Systems (C, ARM)
- Computer Security (C, x86)
- Database Systems (C++)

SKILLS

PROGRAMMING LANGUAGES

C • Python • Go • x86
React/Redux • Node.js • Terraform
Bash • StandardML

TOOLS

Git • Figma • Invision • Vim
Firebase • Latex • Markdown

EXTRACURRICULARS

ULTIMATE FRISBEE

August 2018 - Present
Prev. Club Captain of Team 'Harmful'
2018-2019

Hong Kong National Team

GRAPPLING CLUB

August 2021 - Present
Member

OTHER

Hand-pressed Coffee, Snowboarding,
Ukulele, Boxing, Cardistry,
Illustration

EXPERIENCE

STRIPE | SOFTWARE ENGINEERING INTERN

May 2022 - Aug 2022 | Toronto, ON, Canada

- Contributed to the Funding team, working with Stripe balance top-ups. Directly responsible for scoping, designing, and implementing a user-facing feature spanning both the backend (API) and frontend (Dashboard).
- Typescript/React, Ruby. Tested with Jest, internal tooling, and manual end-to-end tests.
- Responsibilities also included responding to RUN tickets related to my feature, communicating with other impacted Stripe teams, creating a design doc, a handoff doc, and feature presentation/demo.

APIAN | SOFTWARE ENGINEERING INTERN

Jun 2021 - Aug 2021 | Aug 2022 Full Time Offer

- Implemented/designed 4+ features, including AWS multi-account asset inventory, cache infrastructure for antivirus definitions, linting + guardrails for code verification, documentation
- Lead agile-style meetings and delivered technical presentations to over 50 engineers
- Technologies: Python, AWS, Terraform, Bash, Linux, and more

CARNEGIE MELLON UNIVERSITY | TEACHING ASSISTANT

Fall 2019, Spring 2021-22 | Pittsburgh, PA

- Teaching Assistant for Principles of Imperative Computation (15122), and Software Engineering for Startups (17356)
- 15122: Coursework mastery in basic data structures, algorithm correctness, modularity, time complexity
- 17356: In-depth knowledge of modern web development technologies and rapid prototyping of web applications
- In charge of leading lab sessions with 20+ students, holding office hours on weekends, advising student group projects

PROJECTS

STORYLINE Aug 2021 - Dec 2021 | Pittsburgh, PA

A blockchain-powered writing platform, where users collectively write a story for the world to see. Each story element is published onto the ethereum blockchain, preventing censorship and deletion. Story elements are also minted as NFTs upon creation, and ownership is transferred to the author. These NFTs can be bought and sold on Storyline as well. Built with Solidity, Truffle, Drizzle (excluding development-only technologies).

X86 KERNEL March 2021 - May 2021 | Pittsburgh, PA

Designed and implemented a Unix-like kernel, named Pebbles. Includes multiple virtual memory address spaces enabled with paging, preemptive multitasking, device drivers, and system calls (fork, exec, wait, vanish, etc). Written in C and Assembly, run and tested in Simics software simulator.