

# Jonathan Cheng

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## EDUCATION

### CARNEGIE MELLON UNIVERSITY

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

### APIIAN | 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

### CRAVE GLOBAL, INC (INNOVAI) | SOFTWARE ENGINEER

Jun 2020 - Aug 2020 | Los Angeles, CA

- Built a web management platform for Crave managers. Features include redux state management, content lookup, filtering, team/client lists with search and sort, user authentication
- React, Redux, Node, Firebase. Tested with Jest and Enzyme
- Responsibilities also include Project Architect, UI design, leading scrum meets across multiple teams

### 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.