## **CJ HINES**

Software Engineer

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in /in/cj-hines

# □ cj-hines.github.io

### RELEVANT COURSEWORK —

Computer Architecture. Cryptography and Info Security. Computer Graphics. Intro to Artificial Intelligence. UI/UX Design and Development. Data Structures and Algorithms. Discrete Mathematics and Probability Theory. Econometrics. Antitrust Economics and Law. Financial Economics. Economics of Growth and Development.

SKILLS -

Technical: Java, Python, C++, Go, R, JavaScript, HTML,

CSS, JS, SQL, Rust, Adobe Creative Suite (PS, AI, XD, AE, Pr), Docker, Git, Flask.

English (native), Tagalog (native), Ilocano Languages:

(fluent), Spanish (conversational).

### **EDUCATION** -

8/2019 - 8/2023 University of California, Berkeley 3.57/4.0

B.A. Computer Science. B.A. Economics.

University of Cambridge, Pembroke College 6/2023 - 8/2023

3.7/4.0

Semester Abroad.

8/2021 - 12/2021 King's College London

3.7/4.0

Semester Abroad.

### **EXPERIENCE** -

### 10/2022 - 5/2023 Software Engineer at Energport

Energport

- · Transitioned the energy management system backend to Python from PHP for efficiency and scalability.
- · Authored over 50 comprehensive test cases for the energy management system alongside centralized documentation to ensure maintainability.
- · Configured a virtual machine using PostgreSQL and OracleVM to create a functional testing environment.
- · Oversaw client hardware management through Modbus protocols, tracking performance and fostering client communication and support.

Python / SQL / Modbus / Docker

# 6/2021-8/2021

### Software Developer Intern at NEXTracker

**NEXTracker** 

- 2/2022-5/2022 Developed a Go-based simulator for a solar plant device that adeptly responds to hundreds of API calls per second, offering developers fully functional testing environments.
  - · Performed rigorous traffic testing on simulated devices, resulting in improved installation quantity estimations and cost savings by reducing the number of installed devices.
  - · Optimized the backend logging system through a comprehensive refactoring process.
  - · Designed a front-end webpage to support an internal login and dashboard system.

Golang / Docker / Jenkins / HTML / Javascript

### PROJECTS -

### Data Vis / Web App War Literature Conflict Timeline

github.com/cj-hines/warlit

- · Developed an interactive timeline for war literature and historical events with dynamic filtering.
- · Implemented a feature to highlight related events and display detailed descriptions upon selection, enhancing user engagement and informational depth.
- Utilized event listeners for interactive elements and integrated the vis.js library for timeline generation. HTML / CSS / Javascript

### Computer Graphics Font Rendering Engine

github.com/cj-hines/font-rendering-engine

- Built a font rendering engine in Rust with my computer graphics team, utilizing ttf\_parser and rust-sdl2.
- · Utilized Bezier curves from ttf files to generate glyphs and employed ray intersections to assemble readable sentences and paragraphs in multiple fonts.
- ullet Implemented the supersampling feature by sampling from  $N^2$  evenly-spaced points within the pixel to enhance rendering efficiency.

Rust / C++ / HTML

### LEADERSHIP AND ACTIVITIES -

8/2020 - 12/2022 Society of Women Engineers (SWE)

Engineering Team / PR Co-Chair / Intersocietal Chair

UCB section dedicated to supporting women and non-binary individuals in engineering and tech. Part of the UCB SWE engineering team and member of leadership as PR Chair and Inter-societal Chair.

8/2019 - 5/2021 The Berkeley Forum Data Analytics Manager / Vice President of Technology

Non-partisan, nonprofit organization that hosts a wide range of events and discussions to bring diverse perspectives to the campus community and foster civil discourse on important and relevant issues. Member of exec leadership as VP of Tech, overseeing the club's data and software projects.