

# CJ HINES

Software Engineer

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🌐 /in/cj-hines

💻 [cj-hines.github.io](https://cj-hines.github.io)

## RELEVANT COURSEWORK

Data Structures and Algorithms. Discrete Mathematics and Probability Theory. Computer Architecture. Cryptography and Information Security. Intro to AI. UI Design and Development. Foundations of Computer Graphics. Econometrics. Antitrust Economics and Law. Financial Economics. Economics of Growth and Development.

## SKILLS

**Tools and Software:** Java, Python, C++, Go, R, JavaScript, HTML, CSS, SQL, Rust, Adobe Creative Suite (PS, AI, XD, AE), Docker, Git, Bootstrap, React.js.

**Languages:** English (native), Tagalog (native), Ilocano (fluent), Spanish (conversational).

## EDUCATION

8/2019 - 8/2023	<b>University of California, Berkeley</b> B.A. Computer Science. B.A. Economics.	3.57/4.0
6/2023 - 8/2023	<b>University of Cambridge, Pembroke College</b> Semester Abroad.	3.7/4.0
8/2021 - 12/2021	<b>King's College London</b> Semester Abroad.	3.7/4.0

## EXPERIENCE

10/2022 - 5/2023	<b>Software Engineer at Energoport</b>	<b>Energoport</b>
<ul style="list-style-type: none"><li>Rewrote the backend in Python from PHP and created 50+ test cases and centralized documentation.</li><li>Configured a virtual machine using PostgreSQL and OracleVM to create a functional testing environment.</li><li>Managed client hardware using Modbus and maintained open communication with clients for upkeep.</li><li>Developed a remote monitoring and management dashboard by leveraging Docker and Netlify to efficiently track the statuses of 100+ sites and optimize alert processes.</li></ul> <p>Python / SQL / Modbus / Docker</p>		
6/2021 - 8/2021	<b>Software Developer Intern at NEXTracker</b>	<b>NEXTracker</b>
<ul style="list-style-type: none"><li>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.</li><li>Performed rigorous traffic testing on simulated devices, resulting in improved installation quantity estimations and cost savings by reducing the number of installed devices.</li><li>Optimized the backend logging system through a comprehensive refactoring process.</li><li>Designed a front-end webpage to support an internal login and dashboard system.</li></ul> <p>Golang / Docker / Jenkins / HTML / Javascript</p>		

## PROJECTS

UI / Web App	<b>Coffee Stop</b>	<a href="https://github.com/cj-hines/coffee-stop">github.com/cj-hines/coffee-stop</a>
<ul style="list-style-type: none"><li>Collaborated with a team in a UI Design class to create an application for coffee enthusiasts using Bootstrap, JQuery, and Hammer.js that allowed users to explore nearby cafes, order custom drinks, check seating capacity, and more.</li><li>Contributed to the implementation of cafe capacity and a responsive map with search functionality, leveraging the Google Maps API.</li><li>Established a consistent visual style, design elements, and added to thorough project documentation.</li></ul> <p>HTML / CSS / Javascript</p>		
Computer Graphics	<b>Font Rendering Engine</b>	<a href="https://github.com/cj-hines/font-rendering-engine">github.com/cj-hines/font-rendering-engine</a>
<ul style="list-style-type: none"><li>Built a font rendering engine in Rust with my computer graphics team, utilizing ttf_parser and rust-sdl2.</li><li>Utilized Bezier curves from ttf files to generate glyphs and employed ray intersections to assemble readable sentences and paragraphs in multiple fonts.</li><li>Implemented the supersampling feature by sampling from <math>N^2</math> evenly-spaced points within the pixel to enhance rendering efficiency.</li></ul> <p>Rust / HTML</p>		

## LEADERSHIP AND ACTIVITIES

8/2020 - 12/2022	<b>Society of Women Engineers (SWE)</b>	<b>Engineering Team / PR Co-Chair / Intersocietal Chair</b>
UCB section dedicated to supporting women and non-binary individuals in engineering and tech.		
8/2019 - 5/2021	<b>The Berkeley Forum</b>	<b>Data Analytics Manager / Vice President of Technology</b>
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.		

## LANGUAGES, INTERESTS

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**Tagalog** - native, **Ilocano** - fluent, **Spanish** - conversational