Ethan Chennault

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Summary Statement

Computer Science and Business Information Management double major at UC Irvine with hands-on experience in full-stack development, testing, and data management.

Technical Skills

Programming Languages
Javascript, Typescript, Python, C/C++, Java

Database Technologies
SQL, Postgres, Firebase, MongoDB (NoSQL), AWS

Web Technologies
HTML, CSS, React, Tailwind, Express, Next.js, Remix

Workflow Tools (and other)
Jira, Git, GitHub, GitLab, Linux, Docker, Figma

Experience

Lawrence Berkeley National Lab June 2025 - Present
Student Assistant Berkeley, CA
- Developed the user interface for TerraNova, a web application to build and edit interactive network maps, capable of handling several different data sources and custom node icons.
- Implemented and documented a full design system, with several dozen WCAG compliant components, utilizing Figma, Storybook, React, Typescript, and SCSS.
- Developed visual regression tests using Playwright and Jest, achieving 100% code coverage.

University of California, Irvine Nov 2024 - Present
Research Assistant Irvine, CA
- Implemented multithreaded random sampling for BLANT, a graph sampling and alignment tool written in C, allowing for a 16 times speedup in runtime on Linux systems.
- Decreased build times by roughly 25% by eliminating redundancy and optimizing the Makefile.
- Developed in-house hosted web frontends for research applications using React and Express.

Alameda County Information and Technologies Department June 2022 - Aug 2022
Summer Technology Intern Oakland, CA
- Configured and repaired switches, firewalls, and routers, allowing for increased network connections.

Hewlett Packard Enterprise May 2021 - Aug 2021
Engineering Intern Remote
- Developed a Python script to remotely connect and query live HPE customer services for data traffic analysis.
- Created suites of tests with Pytest to ensure code quality across Windows and Linux systems.

Education

University of California, Irvine September 2023 - Present
B.S. in Computer Science, B.S. in Business Information Management (Expected 2027)
GPA: 3.83, Dean's Honor List
Relevant Coursework: Data Structures and Algorithms, Information Retrieval, Introduction to Data Management

Projects

- **BLANT:** Graph analysis tool written in C, capable of analyzing networks with billions of nodes and edges, leveraging multithreaded random sampling to index and determine graphlet frequency and distribution.
- **Search Engine:** Web search engine written in Python capable of handling over 50,000 documents, utilizing ranked retrieval based on tf-idf, and having a query response time of 100 milliseconds.
- **Sense:** Full-stack web application for managing a personal budget, capable of handling over 1,000 users and budgets, stored on a Postgres database with a React and Typescript frontend.
- **Redrawer:** Python script for replicating images on Microsoft Paint by analyzing pixel color information and using the Win32 API to efficiently redraw images with widths of up to 4,000 pixels.