

# Alden Bernstein

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## EDUCATION

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### University of California, San Diego

La Jolla, CA | Jun 2026 (expected)

- B.S. in UI/UX with Minor in Computer Science; GPA 3.85
- Courses Include: Introduction to Python, Advanced Java, Linear Algebra, Discrete Mathematics, Eng Computation: Prgrm in C, Basic Data Struct & OO Design, Data Science in Practice

## EXPERIENCE

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### CCHDO | Data Management Assistant

La Jolla, CA | Oct 2024 - Current

- Responsible for creating coding workflows, web applications, and training large language models for the Oceanographic Data Management team at the University of California, San Diego.
- Developed a validation tool that automated the previously manual process of validating oceanographic data submissions. The tool can now perform comprehensive validations in seconds without human error, eliminating hundreds of hours of manual effort annually for users and data managers.

### Crunch Digital | Applications Intern

Los Angeles, CA | Aug 2024 - Oct 2024

- Contributed to the development and testing of API integrations for seamless communication between client and server music research applications.
- Utilized a reporting API to track and deliver detailed music usage licensing data, empowered over 10 music industry stakeholders to make informed, data-driven decisions that improved business outcomes.

### Python Educational-Development Tutor

La Jolla | Jan 2024 - June 2024

- Served as a tutor for students in the Computer Science and Engineering (CSE) department, guiding their Python programming skills through personalized instruction.
- Assisted students in grasping fundamental concepts, helping over 10 individuals pass introductory programming courses.

## PROJECTS

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### Protocol Pilot AI

October 2024

- This Application leverages Chroma, LangChain, and Pytorch to compare industry handbooks and standards with documents under review, automating manual compliance reviews, reducing the time it would take employees to find discrepancies significantly.

### RAG-Powered Semantic Indexing

August 2024

- Developed a Retrieval-Augmented Generation (RAG) system that enables users to analyze their data at no cost on their local machines. Additionally, implemented a multi-session chat archive, which taught me how to effectively continue LLM conversations without relying on external libraries.

### UCSD Minor Code Search

July 2024

- Implemented an online demo for real-time minor catalog searches, consolidating all necessary course information into one accessible platform. This solution addressed a common pain point for UCSD students, streamlining the process of course planning and ensuring they could easily find the relevant information needed to create their academic schedules.

## SKILLS

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Languages (Intermediate): Python • Java • JavaScript • HTML • CSS • C

Development Tools & Libraries : Docker • GitHub Pages • GitHub Actions • Ollama • Tensorflow • PyTorch

• pandas • numpy • LangChain • Huggin Face • Chroma