Steven Hsu

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Education

University of California, San Diego Sep. 2021 - Dec. 2024

Bachelor of Science in Mathematics and Computer Science *GPA 3.71/4.0*

Relevant Coursework: Advanced Data Structures, Algorithms, Digital Systems, Object Oriented Programming, Operating Systems, Parallel Programming, Re-commender Systems, Machine Learning

Relevant Experience

Cyrics Jan. 2026 - Present

Founder & Engineer *San Diego, CA*

- Built and launched a SwiftUI lyrics app to ∼**200 TestFlight beta testers** by integrating real-time playback for Spotify and Apple Music.
- Addressed beta-reported Lock Screen and CarPlay sync gaps by engineering an APNs-backed ActivityKit/WidgetKit pipeline that keeps lyrics current outside the app.
- Improved lyric availability and release confidence with **multi-source aggregation**, caching, fallbacks, XCTest/Node tests, CI-gated Docker builds, and DigitalOcean deployment.

ProtoLab Aug. 2025 – Present

Software Developer *San Diego, CA*

- Designed and implemented a full-stack prototype of a multi-agent feedback system using QuillJS and WebRTC, enabling real-time collaborative document editing and AI-assisted peer review within a Google Docs interface.
- Developed an agent-jury architecture integrating OpenAI's GPT models to simulate diverse reviewer personas, achieving a **30%** increase in feedback diversity and contextual relevance in early pilot tests.
- Engineered a modular backend API for role-based feedback generation and anchoring, supporting parallelized agent reasoning, session persistence, and user-facing comment synthesis within a controlled research environment.

MIT Lincoln Lab June. 2025 – Aug. 2025

Teaching Assistant *Remote*

- Engineered a suite of interactive Jupyter Notebook modules, enabling over **25 students** to experiment with real-world ML algorithms and visualize results in real time.
- Implemented and taught core algorithms for audio pattern recognition, image classification, and natural language processing, enabling a modular cognitive assistant.

UCSD Mathematics Sept. 2024 – Jan. 2025

Undergraduate Teaching Assistant *San Diego, CA*

- Led weekly tutoring sessions for groups of up to **40 students**, clarifying complex mathematical concepts and enhancing student confidence in problem-solving as observed through classroom participation and feedback.
- Provided guidance during ALEKS-based assignments by identifying points of confusion and supporting students across a wide range of math backgrounds, impacting **600+** enrolled students.

Projects

NFL Trend Analysis | *Python: Pandas, Selenium, Statsmodels* | Link

- Partnered with a team of 3 students to develop and implement a machine learning model to predict viewership and search trends measured by previous NFL season data particularly on the Kansas City Chiefs.
- Utilized a large dataset acquired from web scraping, consisting of ∼**3000** data points of NFL viewership data, which was wrangled and transformed into **1200+** elements with 10 different variables, covering US NFL TV data from 2014 to 2024.
- Identified viewership patterns based on TV network and employed traditional machine learning algorithms, including linear regression, ARIMA, and SARIMA models to forecast future NFL viewership data for the Kansas City Chiefs.

Technical Skills

Languages: Python, JavaScript, TypeScript, C/C++, SQL, HTML, CSS
Technologies: Linux, Git, Docker, AWS, React, Node.js, Next.js, Express, Flask, MongoDB, PostgreSQL, Pandas, NumPy, PyTorch, REST, CI/CD
Other: Agile, Scrum, Unit Testing, Cloud Services