# Evan Liang

evanliang945@gmail.com — (510) 203-8422 — github.com/nindroid945

## Education

**University of California, Davis** Expected 2027
M.S. in Computer Science

**University of California, Santa Cruz** Class of 2025
B.S. in Computer Science, Minor in Economics
Graduated with Honors, GPA: 3.61
Relevant Coursework: Data Structures & Algorithms, Analysis of Algorithms, Approximation Algorithms, Computer Architecture, Machine Learning & Data Mining, Distributed Systems, Database Systems

## Skills

**Languages:** Python, C++, JavaScript/TypeScript, SQL (PostgreSQL)
**Frameworks/Tools:** PyTorch, React, Node.js, Express, Distributed Compute (Hive), Git, Docker, Linux, AI Agents (Antigravity, Gemini 3.5 Pro)

## Experience

**Denoising Cochlear Implants using Deep Neural Networks** Spring 2026 – Present

- Developing a deep learning data pipeline using PyTorch to isolate and extract neural EEG signals from noisy cochlear implant electrical artifacts.
- Orchestrating a hybrid compute workflow for large-scale data processing, prototyping models locally before scaling custom dataset training across a distributed Hive cluster.
- Designing 1D U-Net architectures and employing blind source separation methodologies to analyze high-volume frequency-domain data.

**Student Tutor & Course Grader - Computer Science Foundations** Sept 2023 – Jun 2025

- Evaluated assignments and provided structured feedback on algorithmic correctness and complexity analysis for over 100 students in Analysis of Algorithms.
- Led small-group sessions breaking down complex discrete mathematics and logical reasoning concepts.

## Projects

**BugSwarm Data Integration & Classification Pipeline** Sep 2025 – Dec 2025

- Engineered a highly specialized data pipeline to programmatically parse, clean, and normalize execution telemetry from high-volume, unstructured software logs.
- Built an Abstract Syntax Tree (AST) parser to transform messy, real-world software artifacts into structured, queryable formats for machine learning research.
- Directed Antigravity agents powered by Gemini 3.5 Pro to analyze artifact structures, determining the optimal heuristic strategy for processing complex logs.
- Integrated Large Language Models to automate the classification of complex software vulnerabilities with high precision.

**Verification of Mahjong Engine** Jan 2026 – Mar 2026

- Deployed formal verification tools including Dafny and Z3 to provide rigorous mathematical proofs of Mahjong winning hand verification.
- Authored a comprehensive verification model for complex scoring logic to validate system reliability and fault tolerance through formal methods.

**Collegiate Wushu Live Scoring System** Feb 2026 – Mar 2026

- Designed and deployed a live scoring infrastructure for athletic tournaments to streamline real-time data ingestion with Node.js.

- Engineered a synchronization engine linking Google Sheets with a live server via webhooks to ensure immediate frontend state updates.
- Accelerated frontend UI development by leveraging Antigravity and Gemini 3.5 Pro to rapidly prototype and integrate user-facing scoring components.

**Economic Experimental Platform (Backend Architecture)** Sep 2024 – Dec 2024

- Architected a backend-driven experimental simulation platform for economics research utilizing Python and PostgreSQL.
- Designed and deployed automated trading agents to model diverse market strategies within high-frequency asset exchange scenarios.
- Engineered robust data ingestion and real-time visualization components to track market fluctuations and agent behavior continuously.

**Visual Representation Learning** Jan 2026 – Mar 2026

- Engineered machine learning architectures for image synthesis, applying manifold learning and dimensionality reduction to evaluate reconstruction fidelity.
- Utilized Vision Transformers and SimCLR self-supervised frameworks to optimize representation learning on complex visual structures.

## Leadership & Extracurriculars

**Davis Wushu** Davis, CA

**Instructor & Technical Lead** Sept 2025 – Present

- Direct weekly training sessions, mentoring beginner athletes in foundational techniques and competitive forms.
- Engineered a real-time scheduling and live scoring platform using Node.js and webhooks to synchronize tournament logistics via Google Sheets.