

Derrick Lin

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EDUCATION

University of California, San Diego

Expected: June 2026

Bachelor of Science in Computer Engineering and Cognitive Science (Machine Learning & Neural Computation), GPA: 3.8

Relevant Courses: Software Engineering, Data Structures/Algorithms, Machine Learning, Operating Systems

Academic Awards: Provost Honors (3x)

WORK EXPERIENCE

TipTop Technologies

January 2025 - March 2025

Software Engineering Intern

Sunnyvale, CA

- Designed **soft deletion endpoints** in Flask for assets and feeds, ensuring safe recovery while maintaining backend data integrity
- Built real time NLP microservices using **Whisper**, **MarianMT**, and **FFmpeg** on **AWS EC2** and Lambda, enabling low-latency multilingual translation

Supermicro

June 2024 - September 2024

System Engineer (GPU Team)

San Jose, CA

- Diagnosed and resolved **OS and server hardware issues**, improving system reliability by 40%
- Maintained LLaMA model's knowledgebase by integrating data pipelines and automating end-to-end processing with Bash and Python scripts, eliminating **100% of manual workflows**.
- Implemented and optimized training/inference pipelines for LLaMA 3.1 models, increasing accuracy by 30% through **LoRA fine tuning** and optimized environment configuration

CodePath

May 2024 - August 2024

Tech Fellow

San Francisco, CA

- Mentored 30 students weekly in **data structures and algorithms**, resulting in a 25% improvement in problem-solving accuracy

Qualcomm Institute

January 2024 - June 2024

Software Engineering Intern

San Diego, CA

- Developed a high resolution **digital twin** of UCSD Campus using 3D photogrammetry, increasing model clarity by 50%
- Enhanced solar panel positioning and weather modeling by integrating **Python** scripting in Unreal Engine with a C++ plugin to optimize daily sunlight variations

LearnWise AI

October 2023 - December 2023

Software Engineering Intern

Remote, CA

- Developed and deployed **Golang microservices** integrated with AWS Lambda and API Gateway, supporting scalable backend features for real-time education tools
- Improved response times for chatbot and NLP features by leveraging Go's concurrency model and optimizing cloud native service execution

LEADERSHIP EXPERIENCE

Computer Science and Engineering Society (CSES) at UCSD

September 2023 - June 2024

Event Director

San Diego, CA

- Directed **40+ technical workshops and social events**, reaching over **500 students**
- Launched a **mentorship program** that increased student participation in computer science by 20%

PROJECTS

KeycapVault | [Demo](#) | [Github Code](#) | (Python, MongoDB, Flask, HTML, CSS, JavaScript)

- Created web application with a custom scraper to automate keycap data collection, enable CRUD management, and compare user collection against live product listings

Dev Journal | [Demo](#) | [Github Code](#) | (HTML, CSS, JavaScript, Node.js, Express.js, Jest-Puppeteer, SQLite)

- Created a localized, privacy-focused note-taking application, improving data security and user experience

Stock Predictor | [Demo](#) | [Github Code](#) | (Python, Pandas, scikit-learn, matplotlib, statsmodels)

- Developed a Jupyter notebook based Apple stock predictor that applied unsupervised learning (clustering, PCA) for feature engineering and ARIMA modeling to forecast prices, achieving a 52.8% directional accuracy

SKILLS

Languages | Java, Python, JavaScript, C, C++, HTML, CSS, Golang, Bash

Technologies | React, Node.js, Next.js, FastAPI, PostgreSQL, SQLite, MongoDB, TensorFlow, PyTorch

Software | AWS, Google Cloud Platform, Docker, Unix/Linux, Git/Github