Derrick Lin

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EDUCATION

University of California, San Diego   **September 2025**
Bachelor of Science in Computer Engineering and Cognitive Science (Machine Learning & Neural Computation), GPA: 3.3
Relevant Courses: Software Engineering, Data Structures/Algorithms, Machine Learning, Operating Systems
Academic Awards: Provost Honors (3x), Synthesis Microgrant Award

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 Intern (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

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

CodePath   **May 2024 - August 2024**
Tech Fellow   San Francisco, CA
- Mentored 30 students in data structures and algorithms, resulting in a 25% improvement in problem solving accuracy

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

Mini AWS (Minio, Kubernetes, Docker, Ngrok)
- Built a multi-node Kubernetes cluster to host MinIO, replicating core cloud services such as S3-compatible object storage, EC2 virtual machines, Lambda serverless functions, and secure remote access
- Implemented GitOps-driven CI/CD pipelines with observability tooling to support the full system lifecycle, including monitoring, access control, and dashboard integration

KeycapVault (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 (HTML, CSS, JavaScript, Node.js, Express.js, Jest-Puppeteer, SQLite)
- Created a localized, privacy-focused note-taking application, improving data security and user experience

SKILLS

Languages | Java, Python, JavaScript, C, C++, HTML, CSS, Golang, Bash
Technologies | React, Node.js, Next.js, FastAPI, PostgreSQL, SQLite, MongoDB, TensorFlow, PyTorch, Kubernetes
Software | AWS, GCP, Docker, Unix/Linux, Git/Github