

Hongsuh (Harry) Ahn

+1 213-435-9574 | harryahn.up.railway.app | harryahn@usc.edu | github.com/HarryAhnHS

EDUCATION

University of Southern California – Viterbi School of Engineering
B.S + M.S in Computer Science (Accelerated PDP) | GPA: 3.61/4.0 (Dean's List)

Los Angeles, CA
May 2027

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, C++, Swift, Java | **Frameworks & Libraries:** React/Next.js, Node.js, Express, FastAPI, Flask | **Databases:** PostgreSQL, MongoDB, SQLite, Supabase | **Cloud & Tools:** Git, Docker, Kubernetes, AWS (EC2, S3, RDS), GCP, Vercel, Railway, Figma, Selenium | **Data/ML:** LLMs, LangChain, Hugging Face, PyTorch, TensorFlow, SentenceTransformers, FAISS, NumPy, Pandas, ETL, RAG, Vector Search, BI Dashboarding

EXPERIENCE

Founding Engineer May 2025 – Present
Dayli (Pre-Seed) Remote

- Designed and implemented robust full-stack architecture utilizing **React Native, Next.js, and Supabase** to facilitate real-time, structured communication with **live data synchronization** across 3 platforms under **200ms latency**.
- Built and optimized an **LLM-driven intent interpretation engine** for precise classification of natural language inputs and dynamic routing to relevant planning modules.
- Delivered critical production features, encompassing seamless cross-platform deployment (iOS, Android, web) and robust **synchronization with cloud calendar APIs** for enhanced scheduling.

Full-Stack Software Developer Feb 2025 – Sep 2025
USC University Advancement – Business Intelligence Team Los Angeles, CA

- Developed and maintained full-stack internal systems using **React, JavaScript, and Python**, enabling USC Advancement to process **\$500M+** in annual gifts across **10+ departments**, while ensuring data security and compliance.
- Improved document retrieval speed by **60%**, saving staff **5+ hours weekly**, by developing a centralized **SharePoint hub** with custom SPFx web parts in **React and Handlebars**.

Founding Engineer Jan 2025 – May 2025
MyLily.org Los Angeles, CA

- Co-founded and led full-stack development of an AI-powered special education platform, impacting **3000+ students across 13 school districts** by streamlining IEP tracking.
- Engineered an innovative **AI-driven smart logging system** (voice/text/manual) automatically structuring multi-student/session data into standardized quantitative progress and qualitative memos.
- Architected and built a robust data pipeline using **NLP, regex, and Pydantic** for efficient standardized IEP document parsing.
- Implemented a secure, **HIPAA/FERPA-compliant backend** featuring **AES-256 encryption** to protect sensitive student data.

Software Engineering Intern Jun 2023 – Sep 2023
Qraft Technologies Central, Hong Kong SAR

- Automated daily stock allocation data processing using **Python, Selenium, and Jupyter**, building reusable **ETL pipelines** that cut team workload by **~20 hours/week**, and boosting team productivity by **~35%**.
- Streamlined data workflows by scripting automation tools to **extract, clean, and transform real-time stock allocation data** from AI-driven signals, processing **1M+ rows daily** with **100% accuracy**.

PERSONAL PROJECTS

Semantic Music Analyzer | *FastAPI, CLAP, TTMR++, FAISS, LLaMA2, Demucs, Next.js* April 2025

- Benchmarked semantic embeddings on **10K+ tracks** using CLAP and TTMR++ encoders.
- Indexed embeddings in multi-vector FAISS for cross-modal similarity search, achieving **~85% retrieval accuracy**.
- Generated natural language tags and summaries with LLMs, leveraging k-nearest-neighbor search.

TooLate.ai | *Next.js, FastAPI, FAISS, SentenceTransformers, GraphQL, TogetherAI* April 2025

- Built an LLM-powered platform that analyzes and compares AI startup ideas against scraped multi-source data.
- Engineered scrapers and ETL pipelines with randomized batching and rate-limit handling, extracting data on **10K+ startups**.
- Used RAG with FAISS + SentenceTransformers for GPT-backed feedback on idea positioning and pivots.

Flexor | *PostgreSQL, ExpressJS, ReactJS, NodeJS, WebSockets* August 2024

- Developed a full-stack social platform with real-time posting, alert systems, and user authentication.
- Built scalable REST APIs and scalable backend designed for **100K+ users** with WebSocket-based syncing.
- Improved engagement through polished UI/UX and reactive client-side rendering using pagination.