Stephen Hung

stephenhung@berkeley.edu | (909) 414-4364 | linkedin.com/in/stephen-h-hung | stephenhung.me | github.com/stephenhungg

Education

University of California, Berkeley Expected: May 2028

Bachelor of Science in Electrical Engineering and Computer Sciences

- **Coursework:** Intro to Computer Science and Programming, Data Structures and Algorithms, Linear Systems, Introduction to Circuits & Devices, Discrete Mathematics and Probability, Computer Architecture and Machine Structures
- **Activities:** Theta Tau Professional Engineering Fraternity, Cloud at California (Cloud Computing Organization)

Skills

Programming Languages: Python, JavaScript (ES6+), TypeScript, Java, C++, C, Golang, SQL, MATLAB, HTML5/CSS3

Libraries/Frameworks: React.js, Node.js, Express.js, LangChain, TensorFlow, PyTorch, scikit-learn, NumPy, pandas

Tools/Databases: Git, Github, Postman, VS Code, MongoDB, PostgreSQL, Docker, Kubernetes, Firebase, AWS, GCP

Relevant Certifications: Stanford Machine Learning Specialization, Google IT Automation with Python Specialization

Experience

Software Engineering Intern Berkeley, CA

OptiGenix May 2025 – Aug 2025

- Achieved **92.3% extraction accuracy** on labeled test data by training a **generative AI** model using Google Vertex AI, structuring detailed blood marker data from **60 unstructured blood test PDFs** stored and processed in **GCP**.
- Enabled secure and scalable ingestion of clinical data by designing and deploying **HIPAA-compliant workflows** on **Google Cloud Platform (GCP)**, supporting 7,500+ monthly PDF uploads with **Cloud Storage, IAM role-based access control, server-side encryption**, and comprehensive **audit logging and monitoring** for compliance/tracing.
- Led backend migration from **Supabase** to **Firebase**, redesigning authentication and database schema logic, reducing **infrastructure costs by 35%** through optimized storage, efficient API design, and elimination of redundant services.

STEM Instructor Diamond Bar, CA

Magikid Robotics Lab May 2023 – Aug 2024

- Delivered hands-on **robotics and programming workshops** to 20+ students per week, introducing **engineering fundamentals**, **algorithmic thinking**, and real world problem solving through **engaging, interactive projects**
- Designed and developed a **comprehensive STEM curriculum** with **10+ interactive modules**, covering foundational and advanced topics such as **robotics**, circuit design, **Python/block-based programming**, and basic 3D modeling.

Projects

InStephGram (Media Sharing App) | *React, Node.js, Express.js, MongoDB, AWS S3* *GitHub Repo*

- Developed a scalable, competition-driven social media platform enabling users to upload photos, authenticate securely, and fully personalize **profile data** with robust, end-to-end CRUD support, using React and Chakra UI to build frontend.
- Designed and integrated real-time feed generation, **like/comment systems**, and a dynamic leaderboard using optimized query patterns and **RESTful API** architecture, using MongoDB for primary data storage and AWS S3 for file uploads.
- Gained proficiency in Postman for building and testing RESTful APIs, ensuring robust functionality and performance.

myBackpack (Professional Networking App) | *Java, XML, ChatGPT API, Figma* *GitHub Repo*

- Developed a **mobile app** that allows high school / college students to efficiently track and manage their academic and extracurricular experiences, featuring an **LLM-powered helpbot** that provides personalized and data-driven guidance.
- Designed and implemented secure, scalable and robust **user authentication** and **account management** systems, along with a customizable **PDF resume export** feature to allow users to create professional and visually appealing portfolios.
- Designed a **portfolio viewing** system and integrated built-in **user bug reporting** to enhance networking and reliability.

ClarifAI (NVIDIA AI Agent Hackathon) | *FastAPI, LangChain, Google Cloud, Manim* *GitHub Repo*

- Led development for a **full-stack** web application that uses **agentic AI** to deconstruct research papers into key concepts, providing users with executable code implementations, animated explanatory videos, and QnA's about uploaded content
- Engineered a **self-correcting LangChain agentic** pipeline capable of writing, executing, debugging, and stitching Manim animation code across multiple iterations for reliable video production and real time logging using **Websockets**

SpotifyTUI+VibeChainAPI (ML Music Prediction) | *Python, TypeScript, Tensorflow* *GitHub Repo*

- Architected full-stack music intelligence platform combining **TensorFlow.js neural network API** (15ms response times, 1000+ req/min) with terminal interface, processing **20D audio feature vectors** for real-time mood prediction
- Built comprehensive multi-API integration system orchestrating **Spotify Web API, Genius API**, and custom ML services with **OAuth2 authentication**, **intelligent caching**, and error handling with automatic fallback mechanisms
- Engineered production-grade backend infrastructure using Node.js/Express serverless deployment on Vercel with security