

Stephen Hung

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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 (Co-ed Professional Engineering Fraternity), Blueprint (Nonprofit Technology Solutions Club)

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.

crakd.co (AI Developer Talent Finder) | *React, Python, GitHub GraphQL, Gemini API*

[GitHub Repo](#) 

- Developed a **web application** that identifies talented software developers using a hybrid AI model combining **quantitative GitHub metrics** with **qualitative LLM code analysis** to rank developers based on natural language queries.
- Implemented a **FastAPI backend** with Docker containerization and integrated **GitHub GraphQL API** for comprehensive repository analysis, along with **Google Gemini LLM/PCA** for intelligent developer assessment and ranking.
- Built a responsive **React frontend** with **Framer Motion** animations and custom Canvas 2D particle visualizations.

ClarifAI (AI Research Agent) | *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