Kenneth Liu

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EDUCATION

Stanford University — Stanford, CA
Bachelor of Science in Computer Science, GPA: 4.115/4.0 — *June 2029*

WORK EXPERIENCE

Backend Software Engineer — Stanford, CA
Stanford Carta — *Jan. 2026 – Present*
- Selected for an engineering role within Stanford's data-driven course planning platform using **ASP.NET**, C#, **PostgreSQL**, and Docker.

Software Engineering Intern — Stanford, CA
LastingLearn, Inc. — *Oct. 2025 – Dec. 2025*
- Architected an **AI-native** SAT prep platform using **React** and **Express.js**, integrating LLMs to generate personalized practice problems based on student performance history.
- Engineered a high-performance leaderboard using **Redis** Sorted Sets, reducing query latency by **90%** compared to standard SQL aggregations and handling **500+** concurrent updates.

Software Engineering Intern — Houston, TX
InternNest, Inc. — *Aug. 2024 – Mar. 2025*
- Collaborated to build a housing marketplace serving **100+** interns with **React**, **Express.js**, and **RESTful APIs**
- Designed **MongoDB** schema for complex user relationships and preferences and built admin dashboard with property and user management features
- Startup placed in the **top 3%** ranking of **YCombinator**'s startup program

Software Engineering Intern — Houston, TX
Baker Engineering and Risk Consultants, Inc. — *Jun. 2024 – Aug. 2024*
- Developed event tree analysis software in **C#/.NET WPF** with dynamic tree editing, reducing analysis time by **80%**

PROJECTS

BobaFinder | *Python, LangGraph, LangChain, MongoDB Atlas*
- Built **multi-agent** market entry research system determining the best location for a boba chain restaurant
- Used **LangGraph Swarm** to enable multi-agent collaboration

Decanter ⌗ | *JavaScript, React, Typescript, Next.js, Node.js, Supabase, PostgreSQL*
- Built volunteer management platform for Science Olympiad tournaments using **Next.js** and **Supabase**, implementing Google **OAuth** authentication, attracting **75+** users in the first month
- Used **Vitest** to automate unit testing on server functions with **97%** code coverage, enhancing codebase resiliency

Remix ⌗ | *JavaScript, TypeScript, React, Vite, GitHub Actions*
- Developed a **React** application that resequences Spotify playlists to create smooth transitions based on audio features, reducing average Euclidean distance between audio feature vectors by **58%**
- Integrated **Spotify OAuth** for secure access to playlists and deployed static site with **Github Actions**

OttoGrade | *Python, Flask, SymPy*
- Built a full-stack web application to accelerate assignment grading for teachers
- Developed **Flask API** for automated math grading with **SymPy** integration, achieving **92%** accuracy processing handwritten math with OCR
- Demoed automated math grading technology to the **US Air Force Academy Preparatory School**, receiving adoption interest for integration into high school classrooms

TECHNICAL SKILLS

Languages: C#, C++, CSS, HTML, Java, JavaScript/TypeScript, Python
Tools: Azure DevOps, Git, Linux, VS Code, Visual Studio
Frameworks: Express.js, React, .NET, Next.js, Node.js
Databases: SQL, MongoDB, PostgreSQL

HONORS

3x American Invitational Mathematics Examination (AIME) qualifier
American Computer Science League Bronze Medal