

Yiran Hu

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Education

University of California, Berkeley

B.A. in Mathematics, Computer Science

GPA 3.95

Berkeley, CA

(Expected) 2029

Southborough, MA

Saint Mark's School, The John Suydam Mathematics Prize

Cum Laude Society

2025

Research

Berkeley

Undergraduate Research Apprentice Program

CA

2025 – Present

- Working with Prof. Eos Trinidad on LLM overuse impacts for first-generation college students.
- Co-authoring synthesis of AI-education policies across 14 large school districts.

Stanford

Stanford Mathematics Camp: Abstract Algebra & Number Theory

CA

2024

- Formal decomposition of CFOP into subgroup chain; explains why certain sequences reduce solution length.
- Wrote 15-page paper; presented to 30+ faculty/peers; received top evaluation.

Experience

AmBees(ambees.io)

Co-founder & CTO

Berkeley, CA

2025 – Present

- Built an interactive mind map that generates personalized, multi-layer career roadmaps using RAG over school-specific courses, organizations, and opportunities.
- Implemented D3.js radial-tree visualization with real-time progress tracking (completion status, notes, completion dates) and contextual AI guidance for each step.
- Unified career exploration + skill-learning recommendations + personalized path generation in one platform, including AI chat for guidance and course lookup with descriptions tailored to each user's university, major, and experience level.

Projects

MindJournal(mindjournal.org): AI-powered reflective companion ("conversational mirror") for self-discovery: Socratic conversation, cognitive-graph visualization of recurring themes, and insight/weekly summaries for growth tracking. Built with Next.js 15, React 19, TypeScript, Tailwind, Framer Motion; D3 for graphing; OpenAI + PostgreSQL/Prisma integration planned.

TalkStorm: Real-time agentic-AI mind map generator for classes/meetings. Uses data structures (e.g., heap-based prioritization) with the Groq API for low-latency tree-diagram generation; renders interactive mind maps via MindElixir.

Extracurriculars

UC Berkeley

Computer Science Mentor

Senior Mentor for CS 88

2025 – Present

- Lead 2 weekly review sessions for 12 students.
- Create video walkthroughs for past exam problems for current and future cohorts.

UC Berkeley

Berkeley Club Tennis

Team Member

2025 – Present

- Competitive member (UTR 8); weekly team training sessions.
- Compete in internal ladders and intercollegiate matches.

Skills

Languages: Mandarin (Native), English (Fluent), Spanish (Beginner)

Programming: Python, C++, Java, \LaTeX , PyTorch, NumPy, ML, LLMs

Coursework: Artificial Intelligence, Honors Multivariable Calculus, Linear Algebra & Differential Equations, Data Structures, Discrete Mathematics and Probability