

David Zhang

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EDUCATION

Columbia University, New York City, New York Expected Graduation: May 2028
Bachelor of Science, Computer Science GPA: 4.07/4.00

- *Relevant Coursework:* Data Structures and Algorithms (A+), Competitive Programming (A), Linear Algebra (A), Multivariable Calculus (A), Probability for Engineers (A), Discrete Mathematics (A), Art of Engineering (A)

EXPERIENCE

Cyris, New York City, NY August 2025 - Present
Co-Founder, Chief Technology Officer

- Building the metacognitive reasoning memory for AI agents by extracting failure-mode rules from historical case analyses, storing them in a sparse-retrieval rule store that is injected at inference time. Currently being deployed for pharmaceutical R&D that predicts bypass pathway failures before phase 2 clinical trials.
- Accepted for interview in Y Combinator's Winter 2025 batch.
- Raised a pre-seed round for \$100K at a post-money valuation of \$2M, led by Convoi Ventures.

NephroNovus, Salt Lake City, UT June 2025 - August 2025
Software Engineer Intern

- Used Python and Jupyter Notebook to create an automated pipeline for the hit-to-lead and lead-optimization stages of protein-based drug development.
- Shifted discovery from in-vitro to in-silico, utilizing NumPy and Pandas to process high throughput screening data, reducing manual testing time by over 90% in early-stage development.

Mathnasium, Salt Lake City, UT November 2024 - August 2025
Mathematics Tutor

- Simultaneously managed the progress of many students in a fast-paced environment as a tutor at Mathnasium.

PROJECTS

MakeMore | *Python, PyTorch, Matplotlib, Numpy* February 2026

- Built an autoregressive, character-regressive language model that generates text similar to, but unique from, the input. It is a comprehensive dive into machine learning, natural language processing, and deep learning.
- Implemented ground-breaking research papers to equip multiple models, from multilayered perceptrons up to Transformers, and a wide range of techniques, such as manual backpropagation and batch normalization.

Agent Development Kit | *Google ADK, Claude SDK, Python* November 2025

- Built multi-agentic workflows using either Google's Agent Development Kit or Claude's SDK to streamline and automate various manual tasks.
- Used Python to implement stateful multi-agents working sequentially or in parallel with each other. Created customized callback functions for live management and implemented databases to store user session and state.

StudyNYC | *React, Rust, PostgreSQL, Supabase, Vite, Tailwind CSS* January 2026

- Digital platform using AI and databases to help local students find ideal study spots around the city.
- Developed a Rust backend with secure password hashing and persistent data management with PostgreSQL. Built a web app with React and Vite, using Supabase for real-time data management and user session handling.

HONORS AND AWARDS

- **Harvard-MIT Mathematics Tournament:** 10th place general individual internationally (2023)
- **American Invitational Mathematics Examination:** 5-time AIME qualifier, scoring 10 (2025) and 8 (2023, 2024)
- **International Baccalaureate (IB) Diploma Recipient:** Awarded for successful completion of IB's rigorous curriculum

SKILLS

Programming Languages: Java | Python | C++ | JavaScript | TypeScript | HTML | CSS | SQL | C | Swift | Rust | C#
Technologies: PyTorch | TensorFlow | Git | React | Node.js | Electron | PostgreSQL | MongoDB | Numpy | Matplotlib
Other: Machine Learning | Natural Language Processing | Agentic AI | Workflow Automation | Full-Stack Development