

Mingxi Yan

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Education

Carnegie Mellon University

Pittsburgh, PA

May 2026 (*Expected*)

- BS in Information Systems and Computer Science; Minor in Logic and Computation
- **GPA:** 3.9/4.0 (Major GPA: 3.9/4.0)

Professional Experience

Software Engineer Intern

AlpSoft, Singapore

May 2025 – Aug 2025

- Maintained and upgraded secure enterprise sites for EnterpriseSG; shipped UI/UX and backend API improvements.
- Fix penetration-test reports by removing exposed URL paths and tightening authorization for user/admin actions.
- Supported deployment sessions on **AWS** using **Docker** and **Terraform**

Full Stack Engineer & Team Lead

Interview (Startup), Pittsburgh, PA

Jun 2023 – Nov 2024

- Led a 4-member team to build an AI-driven interview-prep platform with real-time mock interviews.
- Designed a multi-agent mock interview session; used **AI-assisted development** to accelerate feature delivery.
- Optimized WebSocket handling for lower latency and smoother feedback.

Research Assistant

Chimps Lab, CMU — [WeAudit](#)

May 2024 – Present

- Built tools to analyze demographic distributions in AI-generated images for bias audits.
- Parallelized large-scale image generation with async **Promises**, reducing processing time.
- Developed **visualizations**; containerized and deployed on **AWS EC2**.

Research Assistant

Tsinghua University, THUNLP Lab — [OpenBMB](#)

May 2023 – Aug 2023

- Converted **REST APIs** into modular “tools” and wrote automated **unit tests**.
- Applied embeddings-based **clustering** to categorize APIs for improved search.

IS Consulting Project

ProtectPT (Non-Profit), Pittsburgh, PA

Spring 2024

- Co-designed and delivered a searchable **database** to support anti-fracking advocacy.

Teaching Assistant

CMU — Great Ideas in Theoretical Computer Science (15-251)

Feb 2025 – Present

- Assisted students via 1:1 tutor sessions on proofs and theory topics; designed study guides and exam reviews.

Personal Project — Dealer’s Choice

(Online multiplayer Texas Hold’em)

Jun 2025 – Present

- Developed a poker platform with customized invariants and real-time gameplay.
- Implemented **CI/CD** pipeline and deployed via **ECS** cluster in private subnets with a public **ALB** for security.

Skills

Languages: Python, C, SQL, JavaScript, TypeScript, HTML, CSS — **Frameworks/Tools:** React, Next.js, NestJS, Django, Flask, Docker, Terraform, AWS, Redis, Websocket — **Databases:** PostgreSQL, MySQL — **Other:** Algorithm Design, CI/CD, Cloud Security, Statistical Analysis, Game Theory, Ethical Theory, Formal Logic, Constructive Logic

Selected Coursework

Machine Learning; Data Structures & Algorithms; Computer Systems; Distributed Systems; Functional Programming; Database Design; Application Development; Parallel & Sequential Algorithms; Probability; Logic & Proof