

DAVID LIU

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EDUCATION

University of Michigan | College of Engineering
Bachelor's in Computer Science, Minor in Mathematics

Ann Arbor, Michigan
Aug 2021 – May 2025

- **GPA:** 3.77
- **Relevant Coursework:** Web Systems, Operating Systems, Computer Architecture, Computer Networks

WORK EXPERIENCE

Whova

San Diego, CA

Software Engineer II

May 2026 – Present

Software Engineer I

July 2025 – May 2026

- Led full-stack registration and payment features using React, TypeScript, Python, and Stripe for 200+ daily users, leveraging Cursor and Claude Code to accelerate development
- Own and maintain Whova's third-party integration services end-to-end, including OAuth 2.0 flows, webhook handling, and API gateway configurations
- Configured Datadog dashboards and alerts, reducing incident response time by 50% and errors by 90%, directly improving reliability for 200+ daily users
- Mentored 3 junior engineers through code reviews, technical guidance, and onboarding to team standards

Whova

San Diego, CA

Software Engineer Intern

May 2024 – Aug 2024

- Built and shipped an Agenda Conflict Checker adopted by 500+ events, eliminating agenda import support tickets
- Refactored backend workflows and data pipelines to support evolving product requirements while maintaining production stability
- Collaborated with stakeholders to evaluate feature outcomes and iterate on user experience improvements
- Added unit/integration testing with 95% coverage for the feature, resulting in zero reported errors post-release

University of Michigan

Ann Arbor, MI

Teaching Assistant

March 2023 – May 2025

- Taught Computer Architecture to 200+ students across 4 semesters through lectures, labs, and office hours
- Led structured exam review sessions and provided 1:1 tutoring on core systems and architecture concepts

PROJECTS

Distributed Filesystem (Go, Distributed Systems, Networking)

[GitHub](#)

- Built a distributed filesystem implementing Raft-inspired leader coordination, replicated chunk storage, and heartbeat-based failure detection
- Designed write-ahead logging (WAL) metadata persistence to ensure crash recovery and consistency across nodes
- Implemented fault-tolerant recovery mechanisms inspired by GFS/HDFS for high availability under node failures

Doodle Room (Java, WebSockets, JavaScript)

[GitHub](#)

- Built a real-time collaborative whiteboard using Java WebSockets, vanilla JavaScript canvas API, and an event-driven broadcast architecture for low-latency multi-user sync
- Implemented synchronized canvas state replay for late joiners and cursor tracking across connected clients
- Added a game mode where users draw from a word bank and others guess in real time

Filmterest (Node.js, React.js, MongoDB, Express.js, Tailwind CSS)

[GitHub](#)

- Social media web app that uses Letterboxd APIs to match users by movie/show preferences using OAuth 2.0
- Built frontend using React and Redux for state management, backend with Node/Express and MongoDB

TECHNICAL SKILLS

- **Languages:** Java, Python, C/C++, TypeScript, JavaScript, Go, SQL, NoSQL
- **Frameworks & Libraries:** React, Redux, Node.js, Express, REST APIs, OAuth 2.0, WebSockets, JWT, Stripe API
- **Databases:** PostgreSQL, MongoDB, NoSQL, SQL
- **Cloud & Tools:** GCP, AWS, Datadog, Git, Agile, Cursor, Claude Code, Docker, CI/CD, Linux