

Andy Vu

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Education

Northwestern University, Evanston, IL

June 2026

Bachelor of Science, Major in Computer Science

- **Undergraduate Teaching Assistant:** Fundamentals of Programming in C/C++ and Scalable Software Architectures
- **Relevant Coursework:** Parallel Computing, Intro to AI, DSA, Computer Networking, Algorithms, Operating Systems

Work Experience

Robinhood

June 2025 – September 2025

Software Engineer Intern

Menlo Park, CA

- Built a full-stack LLM chatbot using *React* and *FastAPI* for self-service data analysis, reducing manual work for 50+ data scientists
- Optimized agent workflows with tool calling and context management, lowering token usage by 90% and cutting costs by 75%
- Developed a *Django/PostgreSQL* service for persistent conversation sessions, enabling future analysis of user and LLM behavior
- Led the Experimentation Platform's first AI initiative, creating foundational infrastructure with *Bazel*, *Buildkite*, and *Kubernetes*
- Boosted performance of a high-traffic search filter by over 50% through optimized *SQL* queries and redesigned *Django* endpoints

Polo App

June 2024 – September 2025

Co-founder, CTO

Evanston, IL

- Engineered and launched a campus-only iOS marketplace using *Swift* and *Firebase*, leading a 3-person development team end-to-end
- Scaled the app to 300+ active users, 500+ live listings, and \$1500+ in transactions through social media and in-person marketing
- Implemented client-side image caching and compression in *Firebase Storage*, reducing upload latency and bandwidth usage
- Optimized *Firestore* data models to minimize reads/writes, improving app responsiveness and lowering database costs

Mayfest Productions

January 2024 – June 2024

Mobile App Developer

Evanston, IL

- Built a *React Native* app for the Dillo Day music festival with schedules, live updates, and maps, engaging 10,000+ attendees
- Gained \$3,000+ in sponsorships by collaborating with cross-functional teams to create a sponsor showcase UI

Infosys

June 2023 – August 2023

Software Engineer Intern

Bangalore, India

- Designed and deployed a secure backend service for a visitor management system using *Java Spring Boot*, *PostgreSQL*, *Keycloak*, and *Docker* to streamline visitor check-ins and improve the experience for over 20,000 company employees and guests
- Utilized *Postman* and *jUnit* to extensively test the backend service, ensuring system functionality and reliability

Technical Projects

LeetPatterns.ai | Website | Source Code

React | Typescript | Express | Firebase

- Launched a *React* web app that trains pattern recognition for LeetCode-style algorithm problems, helping 100+ active users
- Designed a multi-modal AI interviewer agent, integrating *Deepgram STT* for speech recognition and *Gemini* for response generation
- Implemented a *WebSocket* server with *Express.js* to enable real-time speech transcription and stream LLM generated responses

World Relief Data Entry System

Next.js | Firebase

- Created a *Next.js* web app with a *Firebase* backend to store and search job opportunities for 1,000+ immigrants and refugees
- Migrated over 5,000 rows of historical job data and implemented search/query features, boosting operational efficiency by 30%

Quick Mental Math App | App Store | Source Code

SwiftUI | Java Spring Boot | AWS | PostgreSQL

- Launched an iOS app using *SwiftUI* that helps students efficiently learn mental math, gaining 7000+ users on the App Store
- Developed a secure API backend with *Java Spring Boot* and *PostgreSQL* and deployed it on *AWS EC2* with *Docker*

Technical Skills

Languages / Frameworks: Swift, SwiftUI, Python, Java, JavaScript, TypeScript, C, C++, SQL, Go, React, Node.js, HTML, CSS

Tools / Platforms: Docker, Git, Cloud Services (AWS / GCP / Firebase), Bazel, Kubernetes, OAuth, OpenAI, Gemini, MCP

Core Skills: Full-Stack Development, Data Structures & Algorithms, OOP, Database Design, Prompt Engineering