Ting Lu
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EDUCATION

University of Michigan Ann Arbor, MI
Bachelor of Science in Computer Science May 2025

- GPA: 3.9/4.0 | Relevant Coursework: Computer Security, Web Development, Foundations of Computer Science, Extended Reality (XR), Operating Systems, Software Engineering, Computer Architecture

SKILLS

Technologies: Python, Java, HTML/CSS, JavaScript, TypeScript, C++/C#, PostgreSQL, MongoDB
Frameworks/Libraries: React, NextJS, SpringBoot, Node.js, Express.js, Flask, Tailwind CSS, MUI, Jest, Zustand
Tools: Git, Docker, VS Code, Cursor, Jira, Unity, Visual Studio, Blender, AWS, Supabase

EXPERIENCE

Mixel Studio Ann Arbor, MI
Full Stack Developer *May 2024 - Present*

- Implemented a NextJS web-based XR slide editor that enables users to create and collaborate on immersive presentations using Meta's MRUK for mixed reality and WebRTC for real-time communication.
- Deployed and configured a Janus WebRTC server to enable real-time multistreaming from an XR headset to over 15 concurrent users, optimizing media handling pipelines for low-latency delivery and synchronized rendering across devices.
- Developed a 3D web editor using React Three Fiber & Zustand, enabling real-time multi-user collaboration through WebSockets with latency under 100ms, including synchronized object transformations, camera states, and scene updates.

Forgotten Felines (Internal Dashboard & Map Feature) Remote
Software Engineer Intern | Full Stack Developer *October 2024 – February 2025*

- Built and launched a Next.js web application with AWS integration to streamline cat rescue operations, improving tracking efficiency by 40% and focusing on low latency and high availability for operational data.
- Engineered an interactive map visualization using the Leaflet API to plot 500+ reported cat sightings, optimizing spay-neuter resource allocation and cutting response time by 4 hours through data-driven decision-making.
- Designed a serverless document upload system using AWS S3 with role-based access control, securing 200+ veterinary records and volunteer forms while reducing storage costs by 10% through lifecycle policies.
- Automated 50+ common volunteer queries with Python and AI, saving over 10 hours per week in administrative work and enhancing response accuracy to deliver precise and reliable information within minutes.

Linens N Love (B2B Delivery Communication System) Remote
Software Engineer Intern | Front End Developer May 2024 – September 2024

- Developed a React web application with Express.js and MongoDB as the backend to streamline linen donations between hotels, shelters, and volunteers, increasing efficiency by 25% and focusing on scalable solutions for donation logistics.
- Participated with a team of seven developers through code reviews, pair programming, and feedback sessions, leading to high-quality deliverables aligned with project goals and improvement of code quality by 80% through reduced errors.
- Collaborated with designers and stakeholders to translate 15+ Figma designs into responsive React components, ensuring accuracy and a seamless user experience across devices.

PROJECTS

Open Course | *NextJS, Supabase, AWS, Tailwind*

- Led a 15-person team in agile development of a live study group web app, driving three major iterations across Next.js, Supabase, GCP, and AWS while optimizing workflows with Docker. Delivered a launched product now serving 250+ active users and secured a strategic partnership with the Math Department for pilot testing.
- Architected a Next.js 14 application using server components for SEO optimization and client components for interactivity, integrating Supabase Realtime to achieve sub-second synchronization across 50+ concurrent study sessions.
- Mentored 5 junior developers in Git-based code reviews and pull request workflows, enforcing testing standards and improving code quality to cut regression bugs by 30%.
- Scaled real-time features by optimizing Supabase WebSocket connections, enabling seamless collaboration for study groups with 50+ concurrent users through enhanced synchronization and lowered server-side bottlenecks.

Multiprocessor Thread Library | *C++*

- Developed a multiprocessor thread library in C++ from ground up, incorporating key features such as thread creation, synchronization primitives (e.g., locks, condition variables), and efficient scheduling policies to support multi-core systems.
- Utilized low-level system calls, atomic operations, and a guard variable to manage thread execution and context switching while ensuring thread safety on multi-processor systems.

PodSkim | *React, PostgreSQL, Cloudflare*

- Built a node visualizer for PodSkim, a tool that makes podcasts interactive and surfaces key insights quickly.

PartyGraph | *NextJS*

- Created an event finder that visualizes connections between events, venues, and communities in an interactive node network.
- Meta's Llama 4 Hackathon Finalist

INTERESTS

Fashion, Video Games, Tutoring, Violin, Tech News, Badminton, Extended Reality, Cafes, Nonprofits