

Mingkuan Yan

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science, GPA 4.00

Expected Graduation, December 2025

- **Concentrations:** Intelligence (AI) and Media
- **Relevant Coursework:** Design and Analysis of Algorithms, Machine Learning, Computer Architecture, Data Structures and Algorithms, Object-Oriented Programming, Computer Graphics, Probability and Statistics, Linear Algebra
- **Organizations:** Georgia Tech Varsity Rowing (18 hours and 90km per week), Symphonic Band, Chick fil-A Team Member

SKILLS

Languages: TypeScript, JavaScript, Python, SQL, HTML, CSS (SCSS), Java, C++, C, GLSL, Scheme

Tools: Next.js, React.js, Angular, React Native, Node.js, Prisma, PostgreSQL, AWS, Firebase, Tailwind, Bash, Git, Figma, ArcGIS

EXPERIENCE

Ensemble (ensemblesocialmusic.com) | Founding Engineer (UI/UX Lead)

October 2023 – May 2024

- Co-developed a social music platform with 1K+ users for musicians to effortlessly collaborate and remix music.
- Spearheaded Ensemble Studio: the responsive desktop version of Ensemble, using Angular, TypeScript, HTML, and SCSS.
- Created 20 mockups in Figma for key features, including the feed, profile page, and Bandboards, with light and dark modes.
- Self-learned Angular and TypeScript in 2 weeks, enabling the team to meet the alpha testing deadline within 4 months.
- Architected the user profile page from scratch, integrating Angular Material UI elements like dialogs and sliders.
- Refactored a 40K+ line codebase by modularizing code and adding JSDocs, reducing code reading time by 70%.

Sideline (sideline.team) | Founding Engineer

January 2024 – May 2024

- Created an all-in-one multimodal vector search and automated player analysis platform for sports recruiting and officiating.
- Developed a scalable front-end using React.js and TypeScript, ensuring modularity for seamless testing and pitching needs.
- Demoted to 17 colleges: 7 D1, 3 D2, 5 D3, and 2 NAIA; Received valuable customer discovery input to pivot accordingly.

Research

Georgia Tech Friendly Cities Lab | Undergraduate Research Assistant

September 2024 – Present

- Developed a legislative mismatch tool to analyze discrepancies between U.S. Congress Representatives' voting records and their districts' Social Vulnerability Index; utilized SQL and Python for data extraction and visualized results in QGIS.

PROJECTS

Gravl (gravl.org) | Next.js, Python, TypeScript, HTML, SCSS, Google Maps API, PostgreSQL, AWS

August 2022 - Present

- Created a full-stack travel website using Next.js, allowing users to track and share their travels with friends.
- Engineered a PostgreSQL database using Prisma, ensuring streamlined and efficient data management.
- Designed sleek CSS animations with React libraries, using optimistic updates to display user travel progress on maps.
- Integrated Google Maps API Directions Service with GeoPandas, hosted on a FastAPI server running on AWS EC2, to automatically map counties along user-planned routes, reducing manual input time by 95%.
- Streamlined user authentication with Google OAuth, guiding new users through a modal-driven onboarding process.
- Developed a mobile version with React Native, incorporating iPhone Core Location to automatically track travels on the go.

Network @ MIT Reality Hack (github.io/network) | JavaScript, HTML, CSS, Firebase, Figma

January 2024

- Crafted an augmented reality-powered networking assistant integrating facial recognition for seamless team formation.
- Engineered an aesthetic UI with CSS glitch effects, enabling users to input networking interests directly to Firebase.

GeoSurfer Chrome Extension | JavaScript, HTML, SCSS, Fetch API, Firebase

December 2023 - Present

- Crafted and launched a Chrome extension that meticulously tracks how much time users spend browsing Google Maps.

AWARDS

HackMIT 2024 – 1st Place Best Hardware Hack Award (Telepathy): A non-invasive, fully private silent speech interface.

HackMIT 2023 – 1st Place TerraAPI Award (Bite): A full-stack, computer vision powered watch that tracks daily nutritional intake.

USACO Silver: Earned after months of regular practice on competitive coding platforms to perfect algorithmic coding skills.

Eagle Scout: Awarded after 33 merit badges, 3 leadership terms, canoeing 95 miles, and sewing 7,029 masks for pediatric patients.