Andrew Zhang

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Education

Skills

University of California, Los Angeles

BS in Mathematics of Computation

Sep 2021 - June 2025

Los Angeles, CA

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Languages: C++, Python, Typescript, JavaScript, HTML/CSS, Java, C, C#, SQL, JS Frameworks (React, Next, Node)

Technical skills: version control, algorithms, data structures, front-end & back-end development, database management

Experience

Software Engineer Intern

March 2025 - Ongoing

Tailorflow AI

San Francisco, CA

- Implemented dynamic nested routing with Next.js app router for the onboarding flow—using loading states, route guards, server-side rendering, and code-splitting—to improve page load times by 35% and decrease bounce rates by 15%.
- Developed reusable UI components (dynamic checklists and progress tracking) with shaden/ui for the chatbot interface and onboarding dashboard, boosting user engagement by 2x and reduced UI-related bug reports by 40%.

Software Engineer Intern

June 2024 - Aug 2024

Reality AI Lab

New York City, NY

- o Integrated FastAPI endpoints with Google Cloud Vertex AI, boosting data throughput and reducing API response latency by 25%
- $\circ \ \ Developed \ automatic \ outline-to-slide \ generator \ with \ Next. js, \ React, \ and \ jsPDF, \ completely \ eliminating \ manual \ slide \ creation \ time$
- \circ Implemented advanced state management with Redux Toolkit onto Next.js/React front-end, reducing initial load times by 35%

Software Engineer Intern

Jul 2023 - Sep 2023

OpenQQuantify

Remot

- Developed Python scripts integrated with OpenAI APIs to automate the processing of large datasets, increasing efficiency by 50%
- o Conducted validation tests with Jest and PyTest, achieving a 98% accuracy rate in data outputs generated from the AI-driven systems
- Redesigned PostgreSQL queries and optimized query indexing to increase data retrieval speed by 30% across 10,000+ records

Lead Software Developer

Jun 2022 - Sep 2022

BruinLabs

Los Angeles, CA

- o Developed a prototype app + website using HTML, CSS, JavaScript, and Swift, creating a functional demo capturing investor interest
- Utilized Git version control to streamline workflows, cutting merge conflicts by 50% and expediting feature integration by 170%
- \circ Implemented real-time notifications & dynamic content updates, reducing data latency by 3x and boosting user engagement by 2.7x

Projects

ContactOrganizer | Node.js, Express.js, MongoDB, JWT

Jun 2024

- o Architected a robust backend API for managing complex contact information, employing Express.js for scalable server-side logic
- o Designed and optimized MongoDB schemas using Mongoose, ensuring efficient data management for user and contact relationships
- $\circ \ \ \text{Implemented JWT-based authentication and authorization mechanisms, enhancing application security by securing API endpoints}$
- o Developed custom middleware for complex error handling and token validation, enhancing application's security and stability

Portfolio Website | HTML/CSS

Jan 2024

- o Designed and launched a responsive & interactive personal portfolio website, leveraging HTML5 and CSS3 for optimal Front-end
- o Deployed on custom domain & features user interface with seamless navigation and optimized load times for improved user experience

3D Basketball Game | JavaScript

July 2023 - Sep 2023

- Engineered an immersive 3D basketball game utilizing a custom JavaScript library as an innovative alternative to WebGL
- o Implemented advanced 3D modeling techniques (precision collision detection algorithms, dynamic lighting, shadow rendering effect)
- o Optimized performance to ensure smooth gameplay experience and enhanced user engagement through realistic in-game physics

B-Link | MERN Stack(MongoDB/Express/React/Node.js)

Jun 2022

- o Created full-stack web application using MERN stack, incorporating real-time updates and user authentication for seamless experience
- o Crafted intuitive and responsive UI with CSS, enhancing user experience through effective sorting, filtering, and unique user profiles
- Employed agile methodologies and version control to streamline development, leading extensive usability testing to meet user needs