Tongze Mao

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EDUCATION

University of California, Irvine *Irvine, CA*
Bachelor of Science in Computer Science *Sept 2020 - Jun 2024*
Bachelor of Science in Informatics
Minor in Statistics ***GPA:*** *3.934 / 4.00 (CUM LAUDE)*

SKILLS

Mobile & Full-Stack Development: Swift, React/React Native, Flutter, JavaScript, HTML/CSS, TypeScript, Agile/Scrum.
Programming & AI: Java, Python, C/C++, R, Machine learning fundamentals, Basic MIPS (Assembly), Algorithmic complexity.
Databases & Cloud: MySQL, MongoDB, Firebase, Node.js/Express, REST APIs, Postman, Webhooks.
Design & Collaboration: Figma, Adobe, MS Office, Jira, GitHub, UI/UX design, code reviews.

WORK

Software Developer & Team Lead *Irvine, CA*
SUPTECH *Apr 2024 – Present*
- Engineered two full-stack mobile apps from the ground up using Flutter and Firebase, achieving rapid MVP delivery.
- Set up MySQL databases and JavaScript-driven back-end services, ensuring seamless data flow and real-time synchronization.
- Integrated APIs from major partners (Roborock, EcoFlow, Anker, Dreame, Jackery, etc.) to provide advanced device connectivity.
- Served as project manager and lead developer: executed Agile sprints, conducted code reviews, and guided release cycles.
- Created end-to-end user documentation, tutorials, and troubleshooting guides, boosting user onboarding and product adoption.

Senior Tutor (Single/Multi-variable Calculus) *Remote*
HD EDU *Jul 2021 – Present*
- Developed and delivered curricula covering Antiderivatives, the Fundamental Theorem of Calculus, Taylor series, and advanced multivariable topics.
- Implemented structured lesson plans, interactive problem-solving sessions, and real-time Q&A channels to enhance student engagement.
- Instructed over 160 undergraduate students, accumulating more than 200 hours of teaching experience.
- Recognized as Senior Tutor after demonstrating exceptional teaching quality, proven course design, and consistently positive evaluations.

PROJECTS

DoneTodo App – Minimalistic Time-Planning Solution *Aug 2024 - Present*
- Developed a Swift-based iOS application emphasizing lightweight UI/UX, reducing user friction and cognitive load.
- Integrated statistical modules to visualize real-time time-distribution trends, providing actionable insights.
- Adhered to a 'less-is-more' philosophy, focusing on core productivity features to minimize bloat and streamline workflows.

HowDidI – Paid Résumé-Sharing Platform *Jun 2024 - Oct 2024*
- Served as PM & technical lead for a 3-person university team, utilizing Swift and Firebase for real-time content synchronization.
- Instituted Agile sprints with continuous requirement refinement, progress demos, and stakeholder feedback loops.
- Mentored junior developers on comprehensive app-building processes: front-end design, back-end integration, user testing, and release management.

Goshsha App – Future AR Interactive Shopping *Jan 2024 - Jun 2024*
- Utilized React Expo for a seamless iOS/Android experience, significantly increasing accessibility.
- Conducted weekly stakeholder sessions to iterate designs based on direct feedback, improving satisfaction rates.
- Refined database architecture and front-end responsiveness while strategically reducing AR complexity for broader user appeal.

Spotify Browser – High-Performance Music Streaming Web App *Oct 2022 - Nov 2022*
- Developed a high-performance Angular-based application replicating core Spotify features, featuring Node.js/Express and MongoDB on the back end.
- Incorporated OAuth authentication and real-time data retrieval from Spotify's API.
- Leveraged lazy loading and caching strategies to reduce load times and optimize user experience.
- Engineered multi-user session handling to accommodate concurrent logins with stable performance.