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:*** *3.938 / 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*

- Led end-to-end development of two cross-platform mobile apps (Consumer App & Technician App) from scratch using Flutter, Firebase, and MySQL—covering architecture design, coding, testing, and deployment for both iOS and Android.
- Engineered a robust back-end integration via Node.js + Express microservices, bridging real-time data flow to MySQL databases. Employed advanced encryption (RSA + AES) to secure user credentials, payment info, and chat messages.
- Architected multi-tier features such as:
  - Real-time location tracking & geospatial queries (Haversine) for "nearby orders," dynamic route updates, and push notifications.
  - Comprehensive messaging with read receipts & chat sessions, integrated via FCM & Node-based Webhooks.
  - Stripe Connect for secure payments, delayed transfer scheduling, and business logic around multi-party billing.
  - AI Repair module, leveraging ChatGPT-like LLM to assist users with self-diagnosis, step-by-step troubleshooting, and optional technician requests.
- Owned the full SDLC—wrote technical specs & user stories, aligned scope with stakeholders, steered Agile sprints, and conducted extensive code reviews to ensure best coding practices, maintainability, and reliability.
- Managed release cycles across both App Store and Google Play: set up CI/CD pipelines, performed versioning & semantic releases, resolved distribution complexities, and prepared store listings & user onboarding flows.
- Oversaw developer collaboration:
  - Mentored junior devs on Flutter best practices and code architecture (MVVM, repository pattern).
  - Ran daily stand-ups, backlog grooming, and sprint retrospectives, increasing dev throughput by ~50%.
- Implemented advanced UI/UX with multi-language support (English, Simplified/Traditional Chinese), ensuring top-tier responsiveness and ease of use across a range of devices.
- Delivered comprehensive documentation—API references, user guides, troubleshooting FAQs—to streamline handoffs and customer onboarding.

PROJECTS

HowDidI App – 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*

- Revamped an AR-based shopping prototype for Gen Z by prioritizing UI/UX enhancements.
- 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.