
XIAOYU A. GAO

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PROFILE

Staff Software Engineer and Engineering Leader with 9+ years of experience building performant, scalable, and secure systems across accessibility, Web3/crypto, and institutional digital asset management. I'm driven by solving complex technical problems, delivering exceptional products, and leading high-performing engineering teams. I help startups and high-growth organizations achieve ambitious goals by pairing strong technical execution with clear product and business alignment. I bridge engineering and leadership through first-principles thinking, thoughtful design, and reliable delivery. As a role model and mentor, I lead with integrity, clarity, and impact — fostering a culture of transparency, continuous improvement, and autonomy. I focus on developing empowered engineers through tailored guidance, actionable feedback, and consistent support.

WORK EXPERIENCE

Ava Labs - Staff Software Engineer, Remote

February 2023 - Present

- Lead Experience Platform (XP) engineering team for institutional-grade digital asset management platform providing secure MPC custody in Trusted Execution Environment (TEE) with staking, DeFi protocol integration, and on-chain data providers across Avalanche, EVM, and Bitcoin blockchains.
- Evolve internal tooling into external-facing product, implementing product re-brand across design system and UI, multi-blockchain transaction support, Auth0-backed authentication/authorization/governance, and integration with in-house BIP-44 MPC and SGX-backed wallet infrastructure.
- Mentor senior engineers, lead technical hiring, and collaborate with senior leadership and cross-functional teams on strategic business goals and OKRs.
- Spearhead AI-assisted development initiatives, creating comprehensive codebase documentation, implementing code quality guardrails, and deploying automated code review systems, achieving 33% of committed code from AI-assisted development.
- Partner with finance team to optimize digital asset operations, achieving 98% utilization of stakeable assets, \$50M+ in tax savings, and 2000% increase in transaction velocity through internal tooling.

Coral - Co-Founder & Head of Engineering, Remote

September 2021 - February 2023

- Led engineering for digital asset marketplace and crypto-based affiliate/referral platform on Avalanche C-Chain, securing \$500K seed investment from AvaLaunch, Status, and Wave Financial.
- Architected low-friction social login with non-custodial wallets (83% adoption) and credit card NFT minting (91% usage), while managing cross-functional product development and third-party design services.

User1st - Senior Full Stack Developer / Solutions Architect - R&D, Remote

January 2020 - February 2023

- Architected 8 accessibility NPM packages including framework-specific libraries (React, Angular, Vue) and web-component toolbar, with automated versioning reducing deployment time by 75%.
- Modernized build tooling with TurboRepo and Vite, reducing startup times by 95%, build times by 80%, and onboarding by 90%.
- Retained \$1M+ in contracts (Amtrak, T-Mobile) through customer liaison, platform integrations, and accessibility compliance QA.

SKILLS

Languages:

HTML, CSS, TypeScript, JavaScript, Shell

Development Tools

PNPM, Git, GitHub, Vitest, Vite, Turborepo, Cursor, Claude, GitHub Copilot, Codex

Front End Tools & Technologies:

Figma, React, Tailwind CSS, Tanstack Router, Tanstack Query, Tanstack Form, Tanstack Table, Storybook

Back End Technologies:

Hono, Node.js, Bun, Drizzle, Kysely, PostgreSQL, Auth0

CI/CD & Infrastructure:

Docker, Kubernetes, Helm, Github Actions, Cloudflare, AWS, Azure

Blockchain Technologies:

Wagmi, Ethers, Viem, WalletConnect, Bitcoin, EVM, Avalanche

EDUCATION

The University of Virginia: School of Engineering and Applied Science (SEAS)

August 2016

- B.S. Computer Engineering & B.S. Electrical Engineering (Double Major), Rodman Scholar (Top 5% of Engineering School)