XIAOYU A. GAO

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PROFILE

I'm a staff software engineer with 10+ years of experience building user-facing products, developer tooling, and institutional-grade digital asset custody platforms. My work focuses on systems where correctness, security, and trust matter—permissions, governance, settlement, auditability, and execution guarantees—while still delivering intuitive and delightful user experiences. I've led initiatives end-to-end, from product and UX design through backend systems and production deployments, translating regulatory, operational, and technical constraints into reliable, maintainable software. I operate as a hands-on technical leader, emphasizing clarity, ownership, and practical feedback. I enjoy mentoring engineers, raising the quality bar through example, and helping teams ship high-impact work in fast-moving, ambiguous environments.

WORK EXPERIENCE

Ava Labs - *Staff Software Engineer / Team Tech Lead,* Remote   February 2023 - Present

- Lead the Experience Platform engineering team, and collaborate with senior leadership and cross-functional teams on hiring and business objectives.
- Evolve internal tooling into institutional-grade digital asset management platform, implementing product re-branding of the web UI, transactions support across multiple blockchains, authentication/authorization/governance, integration with MPC infrastructure, and migration of the web app from CSR to SSR with BFF & external APIs capabllities to K8s .
- Spearhead AI initiatives by creating comprehensive codebase documentation, implementing code quality guardrails, and automated code review systems, achieving 40% of committed code from AI.
- 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 affiliate/referral platform for musicians 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 the engineering team and third-party design services.

User1st - *Senior Full Stack Developer / Solutions Architect - R&D,* Remote   January 2020 - February 2023

- Architected & implemented 8 accessibility NPM packages, and modernized build tooling to reduce deployment time by 75%, startup by 95%, build by 80%, and engineering onboarding by 90%.
- Retained $1M+ in contracts (Amtrak, T-Mobile) through customer liaison, platform integrations, and accessibility compliance QA.

Independent Web3 & Blockchain Consulting - *Principal*, Hybrid   November 2017 - September 2020

- Led re-design of Dexible's dApp, delivering a new design system and component library, and complete UX/UI rehaul of the web app.
- Provided blockchain consulting for Alluminate and CryptoPets, implementing client portals, wallet integrations, and blockchain infrastructure, as well as conducted smart contract audits & technical due diligence.

Booz Allen Hamilton - *Technologist,* Washington D.C. Metro Area   May 2017 - November 2017

- Developed proof-of-concept blockchain applications for U.S. government organizations, including financial transaction systems for the U.S. Treasury department & secure medical record workflows for the FDA.

Capital One - *Senior Associate Software Engineer,* San Francisco Bay Area   August 2016 - November 2016

- Enhanced the Capital One Android banking application by implementing features for home and auto loan services.

SKILLS

Languages:
HTML, CSS, TypeScript, JavaScript, Shell

Front End Tools & Technologies:
Figma, React, Tailwind CSS, Tanstack Suite, Storybook

CI/CD & Infrastructure:
Docker, Kubernetes, Helm, Cloudflare, Vercel, AWS, Azure

Development Tools
PNPM, Git, GitHub, Vitest, Vite, Cursor, Claude, Copilot

Back End Technologies:
Hono, Node.js, Bun, Drizzle, Kysely, PostgreSQL, TEE, MPC

Blockchain Technologies:
Wagmi, Ethers, Viem, WalletConnect, AvalancheJS, bitcoinjs-lib

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)