XIAOYU A. GAO

iknowhtml.github.io | github.com/iknowhtml | linkedin.com/in/iknowhtml

PROFILE

Staff software engineer & engineering leader with a decade of experience building performant, scalable, and secure software libraries & systems across accessibility, web3/crypto/blockchain, and institutional digital asset management. Passionate about tackling complex engineering problems, delivering delightful user experiences, and leading performant engineering teams. I've helped startups and high-growth companies hit ambitious targets by pairing strong technical execution rooted in first principles with a clear understanding of business priorities and product vision. As a manager, I focus on mentorship, clear guidance, and actionable feedback to develop autonomous & motivated engineers that drive collective success. I lead through example, accountability, and results, fostering an engineering culture grounded in transparency, ownership, and continuous improvement.

WORK EXPERIENCE

Ava Labs - *Staff Software Engineer,* 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 wallet infrastructure and migration of the web app from SPA to SSRed app with BFF & external APIs capablilities to Kubernetes.
- 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 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 & implemented 8 accessibility NPM packages, and modernized build tooling with Turborepo, Vite & ESBuild, cutting 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 & complete UX/UI overhaul.
- Provided blockchain consulting for Alluminate and CryptoPets, including implementing client portals, MetaMask integration, & Ethereum testnet infrastructure, as well as conducting ERC-721 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

Development Tools
PNPM, Git, GitHub, Vitest, Vite, AI-assisted development tools (Cursor, Claude, Copilot, Codex)

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

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

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

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)