XIAOYU (AKI) GAO

iknowht.ml | github.com/iknowhtml | linkedin.com/in/iknowhtml

Profile

Staff Software Engineer with a passion for solving complex technical problems, optimizing productivity for remote engineering teams, and delivering delightful products that empower people. Expertise in full-stack web application and NPM package development in TypeScript, with a strong background in digital asset custody, web3, and accessibility. Proven track record of delivering performant, scalable, and secure software solutions in fast-paced, high-growth startup environments. Demonstrated leadership in guiding cross-functional teams, fostering collaboration, and effectively bridging the gap between technical and business stakeholders to achieve strategic goals.

Work Experience

Ava Labs - *Staff Software Engineer,* Remote   February 2023 - Current

- Lead the engineering effort for a Multi-Party Computation (MPC)-based institutional custody application to managing assets across Avalanche X/P and Ethereum Virtual Machine (EVM) chains, and collaborate cross-functionally with senior leadership, design and security teams to drive product development, engineering hiring, and technology/systems architecture decisions.
- Work with the internal finance team to manage digital assets, achieving 98% utilization of stakeable assets for revenue generation and over $50M in tax savings, as well as develop and maintain internal tools to empower the finance team, resulting in a 2000% increase in transaction generation velocity.

Coral - *Co-Founder & Lead Engineer,* Remote   September 2021 - February 2023

- Led the engineering team in front-end, back-end, and smart contract development for a digital asset marketplace for music, collectibles, events, and experiences, as well as a crypto-based affiliate/referral marketing platform on the Avalanche C-Chain, which secured $500K in seed investment from Avalaunch, Status, and Wave Financial.
- Worked cross-functionally with co-founders to translate business requirements into product specifications and engineering tasks, managed third-party design services for UI/UX, and coordinated project schedules, task assignments, and progress tracking to meet deliverable timelines
- Architected and implemented features such as low-friction social login sign-ups with non-custodial wallet creation, resulting in 83% of users signing up with social accounts, and NFT minting with credit cards via Stripe, leading to 91% of users purchasing NFTs with credit cards.

User1st - *Solutions Architect - R&D,* Remote   January 2020 - February 2023

- Led the development of in-code accessibility libraries for 8 NPM packages, including a core accessibility remediation library, web framework-specific packages for Vanilla JS, React, Angular, and Vue, and a micro-frontend-based static accessibility analysis toolbar using web components and Shadow DOM.
- Managed and automated versioning and publishing of NPM packages using TurboRepo and Lerna, reducing package deployments by 75%, as well as developed JWT-based read/write access middleware for a private NPM registry using Verdaccio.
- Modernized development and build tooling, and parallelized processes across codebases, reducing development environment startup times by 95%, build times by 80%, and engineering onboarding time by 90% using TurboRepo, PNPM, Vite, Rollup, and ESBuild.

Skills

Languages:	Development & Testing Tools
HTML, CSS, TypeScript, JavaScript, Shell	Git, NPM, Yarn, PNPM, Vitest, Webpack, Rollup, Vite, Lerna, Turborepo, Github Actions
Front End Technologies & Tools:	**Back End & Infrastructure Technologies:**
Figma, React, Redux, RxJS, Storybook, Next.js	Node.js, Docker, Kubernetes, PostgreSQL, Cloudflare, AWS

Education

The University of Virginia: School of Engineering and Applied Science (SEAS)   August 2016

- B.S. Computer Engineering & B.S. Electrical Engineering