
AKI GAO

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Profile

I am a software engineer, architect & leader with a passion for creating products that empower people and democratize technology and building & leading world class engineering teams. I believe in the power of leveraging compassionate design & thinking based on first-principles to drive product, engineering, and leadership. I offer over 4 years of professional experience in software development in Agile environment, and my areas of expertise include front end, UX/UI & digital accessibility.

Work Experience

User1st - *Front End Software Architect - R&D*, Remote February 2022 - Present

- Architect, develop proof-of-concept & lead team of developers to implement client-side component identification system for digital experience platform.
- Conduct code reviews and advise & mentor developers on front end/TypeScript architecture, design patterns and general best practices.
- Spearhead engineering initiatives including front end/TypeScript code style guidelines/conventions, documentation for codebases & streamlined processes for Scrum sprints.

User1st - *Software Engineer - R&D*, Remote February 2021 - January 2022

- Architected and implemented features & infrastructure for new flagship digital experience, including front end library packages for automatic accessibility remediation, microfrontend for cross platform Toolbar web component package, monorepo structure, build tooling, and payment gated NPM packages/registry using token-based authentication.
- Performed large scale refactor to remove legacy code for flagship accessibility platform codebase for front end (React/vanilla JS), back end (.NET) & infrastructure (Docker, Kubernetes & shell scripts) that reduced codebase size by 75%.
- Contributed core features and managed codebase infrastructure for automated accessibility remediation library including automated accessibility fixers & test cases, decorator library for cross-cutting concerns, and build configurations for compilation for browser script & module library, as well as CSS extraction.

User1st - *Solutions Integrator*, Washington, D.C./Remote January 2020 - February 2021

- Audited client websites and mobile applications and remediated websites to comply with accessibility standards for 20+ clients, including a major wireless network operator and Fortune 500 healthcare provider, for compliance with the WCAG 2.1 AA standard, Section 508 guidelines, and the ADA.
- Created internal tooling to automate tasks & improve productivity including:
 - Command-line tool to automate website URL discovery and auto-generate web page screenshots to reduce time estimations by 33% and improve accuracy by 50% for client websites.
 - Cross-browser extension to inject in-house runtime environment for client sites during accessibility remediation to replace unreliable tooling.

Skills

Languages:

Shell, JavaScript, TypeScript

Development and Testing Tools:

Git, NPM, Yarn, Webpack, Rollup, Lerna, Babel, Mocha, Chai, Puppeteer, ESLint

Front End Technologies:

Figma, HTML, CSS, React, Redux, Emotion/Styled Component, Angular, RxJS, Emotion, Storybook, Next.js

Back End & Infrastructure Technologies:

Node.js, Express, Docker, Firebase (Firestore, Cloud functions), Google Cloud Platform, AWS

Education

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

August 2016

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