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# AKI GAO

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## Profile

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I am a solutions architect, software engineer, & engineering leader with a passion for creating products that empower people & democratize technology, as well as building & leading world class engineering teams. I believe in the power of leveraging compassionate design & thinking based on first-principles to drive product, engineering, & leadership. I offer 5 years of experience in the software engineering industry, and my areas of expertise include full stack engineering/architecture, UX/UI/accessibility & engineering leadership/management.

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## Work Experience

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### User1st - *Solutions Architect - R&D*Remote

February 2022 - Present

- Modernize development & build tooling for front end codebases and parallelize pipeline processes to reduce development environment start up times by 95% and build times by 80%.
- Architect, develop proof-of-concept, and lead developers to implement DOM event-driven and observable stream-based component identification system for flagship digital experience platform.
- Spearhead engineering initiatives such as front end/TypeScript code style guidelines/conventions, documentation for codebases, and technical workshops.

### User1st - *Software Engineer - R&D, Remote*

February 2021 - February 2022

- Architected and implemented features/infrastructure for flagship digital experience, including front end library packages for automatic accessibility remediation, micro-frontend for cross platform Toolbar web component package, monorepo structure/build tooling for codebase, 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 & Fortune 500 healthcare provider, for compliance with the WCAG 2.1 AA standard, Section 508 guidelines, & 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.

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## Skills

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### Languages:

TypeScript, JavaScript, Shell

### Front End Technologies & Tools:

Figma, HTML, CSS, React, Emotion, Angular, Redux, Zustand, RxJS, Storybook, Next.js

### Development & Testing Tools:

Git, NPM, Yarn, PNPM, Webpack, Rollup, Vite, Lerna, TurboRepo, ESLint, Mocha, Chai

### Back End & Infrastructure Technologies:

Node.js, Express, Docker, Firebase, Vercel, Google Cloud Platform

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## Education

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

August 2016

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