
AKI GAO

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Profile

I am a Software Engineer with a passion for creating products that empower people and democratize technology. I believe in the power of leveraging compassionate and data-informed design based on first-principles to drive product and engineering practices. I offer over 3 years of professional experience in software development using functional programming/object-oriented paradigms and event-driven architectures in Agile environments. My expertise is in front-end, UX/UI, and digital accessibility, and my areas of professional interest include the Web, software architecture, and engineering productivity/leadership.

Work Experience

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

February 2021 - Present

- Conduct research and implement proof-of-concepts for transition to a microfrontend architecture using shadow DOM and React higher-order component library for automatic accessibility remediation for new accessibility product suite.
- Develop automated accessibility fixes, bootstrap linting and Webpack infrastructure, and implement decorator library for cross-cutting concerns in TypeScript for accessibility remediation SaaS platform.
- Resolve critical customer UI issues for an automated web accessibility testing SaaS platform developed with React that led to the retention of a multi-million dollar enterprise client.
- Lead instruction for accessibility training with 20+ hours of content covering a range of topics including accessibility standards & principles, assistive technologies and best practices for developing and testing accessible software.
- Perform manual accessibility testing for mobile, desktop and kiosk applications, provide on-call engineering support for U.S. customers, and engage directly with enterprise clients to advise on workflow and infrastructure integration with User1st products.

User1st - *Solutions Integrator*, Washington, D.C./Remote

January 2020 - February 2021

- Remediated websites to comply with accessibility standards for 20+ clients, including a major wireless network operator and a Fortune 500 healthcare provider.
- Audited client websites and mobile applications for compliance with the WCAG 2.1 AA standard, Section 508 guidelines, and the American's with Disabilities Act (ADA) with assistive technologies such as JAWS, NVDA, VoiceOver and Talkback.
- Created internal tooling to automate tasks & improve productivity including:
 - A 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.
 - A cross-browser extension to inject User1st's uRemediate runtime environment for client sites during accessibility remediation to replace unreliable tooling in 95% of use cases.

Skills

Languages:

JavaScript, TypeScript, Shell (Bash)

Development and Testing Tools:

Git, NPM, Yarn, Webpack, Babel, Jest, Mocha, Chai, Puppeteer, ESLint

Front End Technologies:

HTML, WAI-ARIA, CSS, React, Redux, Emotion/Styled-Components, Storybook

Back End & Infrastructure Technologies:

Node.js, Express, PostgreSQL, Docker, Kubernetes, AWS

Education

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

August 2016

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