

timmckay

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Design-centric Staff Frontend Engineer with 10+ years of experience creating scalable component libraries and design systems. Specialized in building LitElement/Web Components, TypeScript architectures, and developer experience tools that enhance productivity and maintainability. Proven track record of technical leadership focused on crafting enjoyable experiences for both end-users and co-developers.

Technical Expertise

- **Frontend Development:** LitElement/Lit, TypeScript, Web Components, Vue, Tailwind CSS, SASS
 - **Architecture & Design:** Design Systems, Component Libraries, Atomic Design, Micro-Frontends
 - **Developer Experience:** Build Tooling, Custom Bundler Plugins, Unit Testing, Documentation
 - **Performance:** Core Web Vitals Optimization, WCAG Compliance, Progressive Web Apps
 - **Backend Integration:** REST APIs, GraphQL, MongoDB, Service Workers
 - **Modern Frameworks:** Astro, Observable Plot
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Senior Software Engineer Team Lead

Humana • July 2018 - Present

- **Led development of company-wide design system** using LitElement, TypeScript, and Tailwind CSS, creating a unified framework used across multiple business units and resulting in 40% faster application development.
- **Architected and implemented component library** with Web Components that scales across multiple brands and internationalization requirements, emphasizing accessibility and performance.
- **Created developer experience portal** standardizing application structure and reducing onboarding time by 60% through comprehensive documentation and interactive examples.
- **Engineered Lighthouse auditing service** with Express and MongoDB to track and visualize performance metrics over time, enabling data-driven decisions for optimization.
- **Authored custom webpack plugin** to monitor component library size during releases, providing critical insights into bundle growth and potential optimization issues.
- **Developed GitHub Actions workflow** utilizing GraphQL API to create reporting dashboards with burndown charts and sprint velocity metrics, improving team productivity.
- **Reduced component library CSS by over 75%** through optimization techniques, directly improving page load speeds and Core Web Vitals scores.

Front-End Architect

Blackstone Media • March 2017 - May 2018

- **Led development of Toyota Manufacturing's online store and marketing site**, implementing modern frontend architecture with reusable components.
- **Established atomic design implementation patterns** for UI team, creating standardized practices for component development and integration.
- **Mentored development team** on efficient, maintainable code practices, improving code quality and reducing technical debt.

UX Designer & Front-End Developer

Mission Data • March 2015 - February 2017

- **Built responsive web applications** with multi-sourced video integration and SVG graphics for enterprise clients.
- **Implemented fluid-typography system** that scales font sizes based on screen dimensions, improving accessibility across devices.
- **Collaborated with cross-functional teams** to deliver cohesive user experiences that balanced business requirements and technical constraints.

WEB Designer & Developer

Net Tango • June 2012 - February 2015

- **Designed and developed WordPress & Drupal solutions** for clients in healthcare, government, and non-profit sectors.
- **Created accessible interfaces** prioritizing usability and compliance with web standards.

Personal Projects

Randomizr • December 2014 - Ongoing

LitElement application transforming Christmas gift exchanges into an interactive experience, showcasing Web Components in a real-world context.

The Handy Haversack • 2021 - Ongoing (Intermittent)

Hugo static site with service worker for offline access, featuring inventory management built with Lit, Drag & Drop API, Cloudinary integration, and Firebase database.