MARCUS WARNSLEY

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PROFESSIONAL SUMMARY

Performance-focused Senior Frontend Engineer with 10+ years of comprehensive software engineering experience specializing in architecting scalable, accessible, and production-grade React.js, React Native, and Node.js platforms. Proven expertise implementing modular component systems (Atomic Design, USWDS/federal accessibility guidelines), robust state management, and real-time streaming architectures. Adept at building performant Vite-bundled frontends, integrating RESTful/GraphQL APIs, managing NoSQL stores, and optimizing user experiences under strict WCAG AAA and Section 508 government standards.

SKILLS & TECHNOLOGIES

Core Frameworks & Languages: React (v19, Server Components), Next.js (App Router, Turbopack), React Native, TypeScript (Strict Mode), JavaScript (ES6+), HTML5, CSS3, Tailwind CSS (v4, Design Tokens), CSS Modules

State, Backend & Data: Node.js, Express, AWS DynamoDB (NoSQL), RESTful APIs, GraphQL (Apollo Client), WebSockets, Redux, Context API, Contentful (CMA/CDA), Authentication (JWT, OAuth, SSO)

Analytics & Experimentation: Google Analytics (GA4 / GTM), Snowplow Event Tracking, Adobe Analytics, Statsig (Vercel Flags SDK), Optimizely, LaunchDarkly, Conversion Optimization

Testing, Quality & Compliance: Playwright, Jest, React Testing Library, Vitest, Cypress, Axe-core, Lighthouse, WCAG AAA Compliance Standards, Section 508, USWDS Standards, Atomic Design

Cloud, DevOps & Tooling: Vite, Nginx (Static Hosting & Reverse Proxy), Docker, Turborepo, Vercel, AWS (DynamoDB, S3, CloudFront, Lambda, API Gateway), pnpm, Webpack, Git, GitHub Actions, CI/CD, Sentry

Data Visualization: D3.js, Chart.js, Recharts, Vis.js, Mapbox, Google Maps, Geospatial Data, Real-Time Interactive Analytics Ecosystems

PROFESSIONAL EXPERIENCE

Senior Frontend Engineer (Contractor) — Understood.org

August 2026 – Present | New York, NY (Remote)

- Architect and ship reusable, accessible frontend components within an enterprise Next.js 16 (Turbopack) and React 19 production codebase serving millions of families, educators, and professionals.
- Maintain a scalable component-driven design system utilizing Tailwind CSS v4 design tokens and CSS Modules, aligning with USWDS and Section 508 accessibility guidelines for strict WCAG AAA compliance.
- Implement, troubleshoot, and validate granular event-level tracking pipelines using Snowplow, Sentry, and Vercel Analytics to accurately capture cross-platform user journeys and engagement funnels.
- Wire dynamic data layers using GraphQL via Apollo Client against Contentful's multi-space architecture, and build dry-run content migration scripts against the Content Management API to execute sitewide brand updates safely.
- Implement and manage targeted feature flags and experimentation variants utilizing Statsig integrated with the Vercel Flags SDK.
- Ensure high application reliability, test coverage, and visual stability across production releases using Jest for unit testing and Playwright paired with Axe-core for automated end-to-end and accessibility validation.

Senior Frontend Engineer — MilliporeSigma

October 2023 – June 2026 | St. Louis, MO (Remote)

- Architected and optimized customer-facing, mobile-first Next.js and React interfaces using Vite and Webpack bundlers for an enterprise web platform cataloging 300k+ complex products, ensuring high-performance responsiveness across low-bandwidth environments.
- Engineered secure application entry layers by implementing comprehensive client-side authentication/authorization flows, utilizing JWT tokens and OAuth protocols for protected application routes.
- Engineered an interactive, production-grade AI-powered conversational chatbot component, leveraging real-time WebSockets to manage bidirectional data streams and streaming chat replies.
- Wired frontend application environments directly into growth infrastructure plumbing, managing feature flag deployments via LaunchDarkly, conducting data-driven A/B test experiments via Optimizely, and managing tracking pipelines via Google Analytics and Adobe Analytics.
- Engineered scalable data-fetching components using GraphQL and RESTful services to map backend structures seamlessly into responsive, performant user interfaces.
- Maintained software reliability by writing automated unit and integration tests with Jest, React Testing Library, and Cypress, scaling overall test coverage parameters to 85%+.
- Optimized runtime asset behavior via code splitting and lazy loading layout states, achieving a 20% reduction in initial page bundle sizes while elevating Core Web Vitals and Lighthouse metrics.

Senior UI Engineer — Uptycs (Native Security) November 2020 – October 2023 | Waltham, MA (Remote)

- Delivered and scaled a highly interactive commercial enterprise SaaS platform handling 10k+ concurrent real-time events using React, TypeScript, and modern styling systems, continuously auditing paths to elevate Lighthouse score metrics.
- Architected a centralized, reusable cross-platform UI component library using atomic design principles to create a comprehensive corporate design system, maximizing consistency and developer velocity across distinct squads.
- Engineered complex analytical data visualization dashboards and V3 platform tracking frames using D3.js, Chart.js, and Recharts, optimizing UI rendering performance to cleanly draw large-scale relational streaming datasets without dropping frame rates.
- Maintained a baseline orchestration layer utilizing Node.js and Express to manage internal data routing configurations and API proxying across nested application dashboards.
- Maintained rigorous codebase quality by integrating automated frontend unit testing coverage with Jest and React Testing Library to eliminate regression bugs.

Senior UI Engineer (Contractor) — Ally Bank August 2020 – November 2020 | Detroit, MI (Remote)

- Spearheaded a critical legacy modernization of 4 transactional high-visibility user domains, migrating structures from Ember.js to React cleanly with zero customer downtime while optimizing client-side rendering pathways to eliminate layout thrashing.
- Utilized Tailwind CSS to engineer fluid, mobile-first layout configurations and enforce responsive, pixel-accurate compliance tokens matching corporate brand specifications and strict WCAG accessibility rules.
- Ensured component architectural stability by authoring comprehensive unit test cases using Jest across newly deployed banking routes.

Senior Fullstack Engineer — DataStax September 2018 – August 2020 | Santa Clara, CA (Remote)

- Built and maintained highly reactive React and Redux management consoles for distributed data platforms, utilizing vis.js to engineer interactive, large-scale node-and-edge data visualization maps and Tailwind CSS to structure real-time analytical tables.
- Constructed clean data routing abstraction layers using GraphQL and Node.js/Express services to transform heavy backend streams into performant layouts.
- Enforced continuous integration health by executing automated unit test criteria with Jest and React Testing Library on core presentation layers.

Lead Front End Software Engineer — Vibenomics October 2017 – September 2018 | Fishers, IN (Remote)

- Led the greenfield frontend architecture of a comprehensive real-time media scheduling platform in a fast-paced startup environment; established engineering standards, designed modular state management layers, and audited codebase paths to optimize render speeds.
- Integrated and deployed frontend application assets and underlying Node.js runtime handlers securely within a containerized Docker environment utilizing Nginx for static hosting and reverse proxying across an AWS serverless cloud ecosystem (DynamoDB, S3, CloudFront, Lambda, API Gateway).
- Established code reliability standards by setting up automated unit testing baselines using Jest within deployment pipelines.

Frontend Software Developer — DirectEmployers Association September 2016 – October 2017 | Indianapolis, IN

- Spearheaded front-end engineering for the flagship compliance and reporting Analytics portal using React and Redux state layers.
- Engineered interactive data visualization pipelines and complex tracking layouts using D3.js and Chart.js to map out large-scale relational datasets performantly.
- Maintained strict validation guidelines across application views via automated frontend unit tests integrated into peer-reviewed Git workflows.

Previous Frontend Roles — Ion Three Consulting | Navient | Simon Property Group March 2014 – September 2016 | Indiana

- Developed and optimized responsive layout components, enterprise web architectures, and interactive JavaScript interfaces adhering strictly to accessibility, browser rendering metrics, and automated unit testing standards.

KEY PROJECTS

Modular Engineering Portfolio Architecture | Next.js, TypeScript, Vercel

- Engineered a production-ready application shell using a monorepo structure to dynamically map, host, and render isolated micro-frontend instances inside a unified interaction layout.

EDUCATION

Bachelor of Science in Business Information Systems — Indiana Wesleyan University Graduated: 2015 | Marion, IN | GPA: 3.7/4.0