

Zachary Howell

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PROFESSIONAL SUMMARY

Frontend Engineer with 5+ years of experience specializing in high-performance React/TypeScript applications. Expert in crafting responsive, pixel-perfect UIs with TailwindCSS and modern architectures. Proven track record of transforming complex requirements into scalable components and optimizing performance in Agile environments.

EXPERIENCE

AI Engineer Claude Code Project, Anrthropic

- **Agentic Workflow Steering:** Evaluated and iterated on the claude-hfi CLI tool, directing the AI model through multi-turn interactions to reach production-ready status in complex repositories.
- **PR Quality Governance:** Conducted rigorous technical reviews on AI-generated diffs, enforcing standards for modularity, error handling, and performance optimization.
- **Technical Logic Validation:** Validated complex software tasks including async/await migrations, Boid simulations, and POSIX filesystem logic to ensure 100% correctness and zero-regression.
- **Tooling & Environments:** Utilized specialized CLI environments (tmux/VS Code) and advanced Git operations to manage worktrees and finalize high-fidelity code submissions.

01/2026 – Present
Remote

Frontend Engineer, Freelance

- **Architected and deployed enterprise-grade React applications** using **Vite and TypeScript**, delivering 100/100 Lighthouse performance metrics for mission-critical client projects.
- **Engineered complex RESTful API integrations** and real-time dashboards using **Firestore**, managing high-concurrency data states while ensuring 99.9% production uptime.
- **Developed modular, accessible component libraries** with **TailwindCSS**, collaborating with stakeholders to translate complex financial and business requirements into intuitive UIs.
- **Led end-to-end CI/CD automation** using **GitHub Actions**, maintaining rigorous testing workflows and zero-regression deployments across cloud environments.
- **Optimized system-wide performance** by troubleshooting asynchronous data flows and API bottlenecks, balancing immediate UX needs with scalable backend architecture.

10/2025 – Present
New Berlin, Wisconsin

Founder & Lead Full Stack Software Engineer, Claw and Decay Clothing

- **Architected a high-concurrency e-commerce platform** using **React, TypeScript, and Vite**, achieving 100/100 Lighthouse scores through aggressive performance optimization.
- **Engineered complex global state management** (real-time inventory and multi-step checkout) using **React Hooks and Context API** to ensure high-performance rendering under heavy production loads.
- **Integrated secure RESTful payment and fulfillment APIs** (Stripe, Printify) using robust asynchronous patterns and error boundaries to maintain 99.9% uptime during traffic spikes.
- **Established Git-based CI/CD workflows** and automated deployment pipelines, managing the full technical roadmap to support sudden spikes in concurrent traffic.
- **Collaborated across the full delivery cycle** by conducting systematic cross-browser testing and mobile optimization for iOS, Android, and desktop.
- **Leveraged a modular state architecture** to facilitate the seamless integration of third-party logistics and payment tools.

01/2024 – Present
New Berlin, WI

Software Engineer (Frontend & Integrations), North American Fulfillment

- **Spearheaded Angular and Java/Spring Boot development** for 60+ enterprise client dashboards, delivering high-performance data visualizations with 99.9% production uptime.
- **Engineered productivity-focused tooling** by implementing virtual scrolling and efficient data-fetching patterns, reducing load times by 3x for complex financial data sets.
- **Collaborated with UX and Product teams** to translate complex financial and logistics requirements into clean, maintainable code, ensuring pixel-perfect layouts across all enterprise browsers.
- **Optimized mission-critical UIs and APIs** by troubleshooting rendering bottlenecks and backend integration failures, ensuring seamless performance under high-concurrency production traffic.
- **Owned the end-to-end delivery cycle within an Agile environment**, leveraging **AWS (S3, Lambda)** and **REST APIs** to build robust, scalable internal tools.
- **Modernized performance-heavy data tables** using memoization and virtual scrolling, maintaining high responsiveness when handling massive enterprise datasets.
- **Architected scalable system designs** by containerizing legacy frontend services with **Docker** and **Kubernetes**, streamlining the transition from on-premises infrastructure to cloud-native **AWS** environments.

08/2021 – 08/2025
Brookfield, WI

EDUCATION

Full Stack Web Development Bootcamp Certificate, UWM Extended Campus Online

24-week intensive program focused on MERN stack, modern JavaScript, and backend development.

TECHNICAL SKILLS

Frontend & UI Architecture:

React.js (Hooks, Context API, Redux Toolkit), TypeScript, React Native, JavaScript (ES6+), HTML5, CSS3, Tailwind CSS, Vite, GSAP, WCAG Accessibility, Lighthouse Optimization, Webpack

Cloud & DevOps:

AWS (S3, Lambda, EC2, Glue), Docker, Kubernetes, Terraform (Infrastructure as Code), GitLab/GitHub CI/CD, Netlify, Google Secrets Manager, Environment-based configuration

Backend & API Development:

Node.js (Express/NestJS), Java (Spring Boot/ETL), Python, RESTful API Design, gRPC, WebSockets, Microservices Architecture, MS SQL/PostgreSQL (querying/schema), .NET Core familiarity

Data & Database Systems:

PostgreSQL, DynamoDB, Firebase/Firestore, AWS RDS, MongoDB, SQL (Query Optimization), Data Modeling