Andrew Johnson

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Web, Mobile, & Fullstack Engineer

Summary

Results-oriented software engineer with 7+ years of experience delivering excellence and fostering effective collaboration within cross-functional teams. Proven track record of translating complex requirements into scalable software solutions. Skilled in a diverse array of programming languages and patterns, and committed to continuous personal and team growth and development.

Areas of Expertise

JavaScript - TypeScript - React - Node.js - UI/UX - Full Stack Development - Mobile Development - React Native - Rust - HTML/CSS

Professional Accomplishments

Symbols.ai - Remote - 2022-present

Software Engineer

I serve as a fullstack engineer building practical blockchain-based web, mobile, and desktop applications in order to make Bitcoin accessible for real-world use.

Web

- Transformed complex business goals into detailed product requirements and built and deployed numerous fullstack web applications with scalability, performance, and UX in mind (<u>Express.is</u>, React, Vite, <u>Next.is</u>).
- Translated technical domain-specific features into unified frontend experiences using the latest React patterns and libraries (React Query, tRPC).
- Optimized data fetching and display by utilizing client and server-side pagination and caching to improve performance on low-end devices.
- Empowered engineers to quickly build consistent user interfaces by creating scalable and extensible design systems (Tailwind CSS, Headless UI, shadcn/ui).
- Architected scalable codebases with monorepo architecture to create shared components and libraries to reduce code duplication and maintain design consistency across applications (Turborepo).
- Promoted quick and iterative feature development by developing a robust suite of end-to-end, integration, and unit tests (Cypress, Vitest, React Testing Library, Jest).
- Ensured timely error management and user feedback to quickly pinpoint and resolve issues (Sentry).
- Drove user experiences and product direction and executed data-driven decisions by implementing front-to-back product analytics (PostHog).

- Built scalable, high-throughput REST APIs and microservices to satisfy business requirements and provide extensibility for future features (<u>Express.is</u>, tRPC, Actix Web).
- Designed highly flexible databases for quickly evolving business requirements while optimizing for scalability and reliability (MongoDB, Redis, SQLite).
- Provided stakeholders key insights into product usage by building optimized data dashboards and data reporting.
- Ensured the reliable delivery and processing of nearly 500k bitcoin transactions by utilizing asynchronous message queues (Redis, BullMQ).
- Leveraged Shopify as a headless order management system to allow fulfillment partners to seamlessly process and fulfill physical product orders (GraphQL).
- Optimized server memory and disk usage by implementing data compression and caching, allowing for efficient processing of large files and metadata (Sharp, Pako).
- Eliminated server polling by implementing server-sent events between server and client to drive dynamic and realtime user experiences.

Mobile

 Drove customer engagement and unified product experiences between web and mobile by building a companion mobile app and Safari extension (React Native, Expo).

Desktop

- Led the design and development of a Rust-based application that allows connecting directly to bitcoin mining machines with the ability to configure pool settings, power management, and fan speed (Tauri, Diesel ORM, SQLite).
- Implemented scalable internal patterns by designing device-agnostic facades in order to support various device models.
- Implemented asynchronous processing to support a large number of devices and batch operations while remaining performant and non-blocking (Tokio).
- Gave customers additional flexibility by building a streamlined wallet application (Tauri).

General

- Utilized sequence and class diagrams and whiteboarding to design robust systems and effectively communicate with team members and stakeholders (UML).
- Led the implementation of documentation and bug reporting standards to provide clarity and insights into complex systems and provide a contextualized history of design decisions and bug fixes.

Ramsey Solutions - Franklin, TN - 2020-2022

Software Engineer II

As a software engineer at Ramsey Solutions, I played a pivotal role in the development and enhancement of the EveryDollar budgeting app, contributing to both web and mobile platforms.

• EveryDollar Web Application (React, Tailwind CSS, SCSS):

- Led the implementation of key features, ensuring a seamless and user-friendly budgeting experience for 500,000+ users.
- Collaborated closely with the design team to implement responsive and visually appealing interfaces using Tailwind CSS and SCSS.

 Conducted code reviews and provided mentorship to junior developers, fostering a culture of excellence and continuous improvement.

• EveryDollar Mobile Application (iOS, Android, Cross-Platform Xamarin):

- Spearheaded the migration of the iOS app from Objective-C to Swift, optimizing performance and leveraging the latest iOS technologies.
- Contributed to the Android app development using Kotlin and Java, enhancing the overall mobile user experience.
- Implemented new features and improvements, ensuring feature parity and consistency across both iOS and Android platforms.

• Services & APIs, Scalability (Java, .NET):

- Contributed to various backend services to improve and optimize the end experience.
- Spearheaded test driven development within my team and provided cross-team mentorship in order to maximize reliability and scalability for a user base of over 1 million.

• Cross-Team Collaboration:

- Facilitated seamless communication and collaboration between software engineers, designers, writers, and test engineers in order to build trust and maximize productivity.
- Actively participated in Agile development processes, including sprint planning, daily stand-ups, and retrospectives, contributing to an agile and efficient development environment.

SportsHub Technologies - Minneapolis, MN - 2018-2020

Frontend Developer

• NBA Digital: NBA Pick'Em Game Suite - https://picks.nba.com

- Developed and maintained a suite of online fantasy basketball games utilizing React,
 Server-Side Rendering, TypeScript, Redux, and Styled-Components.
- Developed highly data-driven applications for hundreds of thousands of users that relied on real time real-world player and game information
- Utilized multiple external APIs in order to incorporate ad serving and international authentication.
- Utilized Docker to deploy to the AWS platform.
- o Made minor changes to the backend app (Rails).

• Fanball - https://www.fanball.com/

- Contributed to the development of SportHub's daily fantasy sports platform
- Used NextJS SSR, GraphQL, and the Context API to build high performing, data-driven features
- Used Jest, Enzyme, and Storybook to build unit, integration, and UI tests
- Worked within a team that utilized Scrum to develop quickly and efficiently.
- Collaborated with external vendors in order to integrate their customized solution within our own.
- Transitioned to frontend lead for the NBA projects team after only being there a few months.
- Performed PR reviews and provided guidance and support for less-experienced developers.

FOODSBY, INC. - Minneapolis, MN - May, 2018 - September, 2018

Software Engineer (Intern)

- Public-facing website (https://www.foodsby.com/main)
 - Co-spearheaded project which completely rebuilt the public-facing website from the ground up using React and Server-Side Rendering (NextJS)
- Primary application (https://order.foodsby.com/)
 - o Performed feature additions, troubleshooting, and bug fixes for primary application
- Used the Jest, Enzyme, and the Nightwatch frameworks to perform extensive unit, snapshot, and automated testing
- Used Redux and NextJS to build fast, server-side solutions that can scale effectively
- Worked heavily with the marketing and design team to create a user interface that clearly communicates the company's core values and primary product features
- Learned the advantages and methodology of working within a Scrum environment
- Was personally offered by CEO to stay longer than original internship length because of exceptional performance and willingness to adapt and learn new things

CARROT SOFTWARE - Minneapolis, MN - 2017-2018

Owner

- Self-started company in 2017 to specialize in web development, design, and mobile development
- Created responsive, modern websites using the Wordpress framework
- Redesigned existing sites to utilize up-to-date design practices and responsive technologies

Education

Bachelor of Science - Management Information Systems (2018) - University of Northwestern - St. Paul