

Joshua Ferrell

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SUMMARY

As a staff software engineer with 10 years of experience building web applications, I have a proven track record of delivering software solutions that drive business success. I specialize in front-end software development and have also designed and built back-end architecture for startups and large enterprises.

EXPERIENCE

Senior Software Engineer II

Confluent

November 2021 - February 2023, Mountain View, CA

- As part of UI Foundations team, created tooling to improve front-end developer experience, including documenting best practices for React.js and JavaScript development, introducing E2E testing patterns with Playwright, and reducing build time of CI pipeline by 20 minutes.
- Led development for design system built in React and Typescript and resolved 800 accessibility violations, bringing components to accessibility standards for ADA compliance, by collaborating with the UI/UX, development and quality assurance teams.
- Trained and assisted developers for accessible development and introduced patterns to improve developer experience.
- Built a CMS to Storybook integration that allowed designers and engineers to contribute to the design system with no-code solution, reducing overhead for changes and increasing community engagement.
- Modified custom webpack configuration by introducing bundle splitting and upgrading to webpack 5.

Staff Software Engineer

GoodLeap LLC

August 2019 - November 2021, Sacramento, CA

- Built a component library used by 20+ developers, leveraging React, TypeScript, and Styled Components, which helped to deliver a consistent user experience targeted at accessibility and performance.
- Designed and implemented a reusable service which allowed the business to use Markdown to create templates for transactional email requests, reducing the cost of ownership by eliminating the need for developers to maintain the templates.
- Re-architected front-ends containing business logic to a microservice architecture using Node.js, which allowed the organization to move to an API that internal and external developers consumed for mobile and front-end applications.
- Reduced the total number of lines of code by 75% by migrating 3 legacy applications to a single Next.js application.
- Reduced the time required to add new home improvement products and loan products from 4 months to 2 days by training the business to add data via no-code solutions that allowed the business to add new home improvement products and loan products without any development work.
- Mentored and trained 3 Junior Software Engineers in TypeScript and React.js best practices. This included planning and running a monthly training session and providing 1-on-1 mentoring during development and code reviews. Those engineers moved on to become Senior Software Engineers.

Senior Software Engineer

MetaCommunications

August 2018 - July 2019, Sacramento, CA

- Built a design collaboration tool using React.js that rendered different file types (images, pdfs, video, and 3D models) as well as annotation tools that gave customers the ability to provide feedback on their designs. The tool allowed for versioning and file comparison including highlighting of file changes.
- Created design collaboration tool in one month in order to release product before major conference; designed and implemented a system to adopt the new tool into existing product in the same timeframe with zero user-facing impact.
- Collaborated with Adobe engineers to create the first TypeScript plugin for Adobe XD.
- Developed file conversion tool in one month that supported over 450 file types, used AWS SQS and a Node.js consumer to transform video formats, utilized image pyramids for deep zoom, and converted word files to PDF for rendering, resulting in increased user engagement and boosted customer satisfaction.
- Modified the design collaboration tool for white-labeling by creating a JSON file for brand settings and changing the UI look.

Software Engineer

Freelance

December 2017 - August 2018, Sacramento, CA

- Promoted reuse, reduced complexity, and cut development time by 50% by developing a component library in React.js for an existing CME platform (commercial medical education) and migrating existing components to the library.
- Led development of dermatological skin type tool using GraphQL, Node.js, and React to provide suggested skin care routines and products.
- Improved user engagement by building an online demo for a voice interface accessibility company that allowed for voice interaction through the website. Used RxJS, React, IBM Watson, and web speech recognition.

Senior Software Engineer

Western Health Advantage

September 2016 - December 2017, Sacramento, CA

- Designed and developed a component library in React allowing developers to use prebuilt accessible and reusable components. Integrated automated ADA compliance checking in Storybook, automated unit testing with Jest and Enzyme, and code coverage reporting with Istanbul into the design system.
- Improved productivity by training 20 staff members on front-end development and helping teams establish coding standards for front-end development and testing including JavaScript linting rules and React best practices.
- Developed billing management for the mobile application using React Native, a new technology for the company.
- Designed and implemented new billing architecture and authorization services using micro services and Node.js allowing better testing and scaling.
- Developed a documentation service for developers to view Swagger REST APIs and database information in a single portal.
- Mentored and trained 5 engineering teams in Agile methodologies and Scrum by implementing code reviews, creating a roadmap, and facilitating daily standup meetings.

Software Engineer (Intern)

Tennessee Valley Authority

January 2015 - July 2016, Knoxville, TN

- Developed web applications that were used by over 20 employees that allowed TVA to maintain Native American cultural artifacts using ArcGIS utilities to efficiently collect and manage data.
- Developed an ArcMap Extension to help facilitate database migrations by automating the data migration process from Oracle to Microsoft SQL server.
- Updated legacy Perl web application to ASP.NET MVC application for river operations group, allowing the monitoring of water temperatures and water level near dams and nuclear plants.
- Provided technical support to archeologists and engineers for ArcMap desktop utilities.

Software Engineer (Intern)

FedEx TechConnect

June 2015 - August 2015, Memphis, TN

- Developed inventory tracking web application which scans barcodes to check in and check out computers and equipment using .NET MVC, JavaScript, and Microsoft SQL Server
- Developed and launched a project management tool with over 200 users that is used throughout FedEx TechConnect.

IT Business Analyst (Intern)

FedEx

June 2014 - August 2014, Memphis, TN

- As Scrum master facilitated discussion among customers and product owners. Designed and developed front-end visualization dashboard that shows graphs of shipment information across all operational companies in 2 months.
- Created a dashboard used for weekly executive presentations and automated process was previously manual to generate the dashboard reducing the time from 8 hours to instantaneous.

AWARDS

- **Innovator of the Year**, GoodLeap, 2020
- **Winning at Work**, Tennessee Valley Authority, 2016
- **Customer Focus Award**, FedEx, 2014
- **Director's Choice Award**, FedEx, 2014

EDUCATION

Bachelor of Science in Computer Science

University of Tennessee, Knoxville • 2016

SKILLS

Industry Knowledge: Progressive Web Applications (PWAs), User Interface Design, Mobile Web Design, Accessibility, Design Systems, Atomic Design

Technical Skills: Node.js, HTML, CSS, JavaScript, TypeScript, React, Redux, Jest, Git, Jenkins, Continuous Integration, GraphQL, Amazon Web Services, REST APIs, Playwright

Communication Soft Skills: Mentorship, Team Lead, Agile, Scrum, Teamwork, Project Planning