**SANTHOSH SAI**

**FRONT END DEVELOPER**

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**PROFESSIONAL SUMMARY:**

* Over **10 years of experience** in delivering scalable enterprise solutions across banking, financial services, healthcare, and e-commerce domains.
* Strong expertise in **React.js, Next.js, JavaScript (ES6+), TypeScript, HTML5, and CSS3** for building interactive and high-performing web applications.
* Experienced in developing **server-side rendering (SSR), static site generation (SSG), and dynamic routing** using Next.js for performance optimization.
* Skilled in building **component-based architectures** with React Hooks, Context API, Redux, and Zustand for state management.
* Proficient in **REST API integration and BFF architecture**, ensuring smooth backend communication and optimized frontend performance.
* Hands-on experience implementing **responsive UIs with Tailwind CSS, Styled Components, and CSS-in-JS libraries**.
* Strong understanding of the JavaScript object model and **DOM** manipulation for complex UI interactions
* Expertise in **Agile methodologies**, collaborating with cross-functional teams, and leading client-facing squads to deliver on business goals.
* Strong understanding of **microservices, API Gateway, and cloud deployments (AWS EC2, Lambda, S3, Kubernetes)**.
* Experienced in **Git, GitHub, Bitbucket, npm/yarn, Jenkins, and CI/CD pipelines** for efficient development and deployments.
* Implemented **security practices** using OAuth2.0, JWT, and role-based authentication in enterprise-level applications.
* Built reusable **UI component libraries** that improved consistency and reduced development effort across multiple projects.
* Skilled in **code reviews, performance tuning, and debugging**, ensuring quality and maintainability of applications.
* Proven track record of working in **client-driven environments**, gathering requirements, and converting them into technical deliverables.
* Developed applications with **unit testing frameworks like Jest and React Testing Library** to ensure coverage and stability.
* Strong communication skills, adept at **stakeholder engagement, sprint planning, and backlog grooming**.
* Consistently delivered **high-quality, scalable, and business-critical applications** that enhanced customer experience and client satisfaction.

**Technical skills:**

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| **Category** | Skills |
| **Frontend Technologies** | React.js, Next.js, Angular.js, Redux, Zustand, Context API, React Hooks |
| **Languages** | JavaScript (ES6+), TypeScript, HTML5, CSS3, Java, Python |
| **Styling Frameworks** | Tailwind CSS, Styled Components, SASS, CSS-in-JS |
| **Backend & APIs** | Node.js, Express.js, REST APIs, GraphQL, BFF Architecture |
| **Cloud Platforms** | AWS (EC2, Lambda, S3, API Gateway, CloudFront), Azure, Kubernetes, Docker |
| **Databases** | PostgreSQL, Oracle, MySQL, MongoDB |
| **CI/CD & DevOps** | Git, GitHub, Bitbucket, Jenkins, TeamCity, Azure DevOps, AWS CodePipeline |
| **Testing Tools** | Jest, React Testing Library, JUnit, Selenium |
| **Build Tools & Package Mgr** | Webpack, Babel, NPM, Yarn, Maven, Gradle |
| **Methodologies** | Agile, Scrum, Kanban |

**Professional Experience:**

**PNC Bank – New York, NY – Aug 2023 – Present | FrontEnd Developer**

* Led a **React.js and Next.js migration initiative** by redesigning core banking dashboards with SSR and SSG, which improved load times and SEO performance.
* Designed **reusable React Hooks and Context APIs** to centralize state management, reducing redundant logic across multiple modules.
* Collaborated with backend engineers to implement a **BFF architecture**, improving client-server interactions and reducing latency in high-traffic financial transactions.
* Built complex **Next.js dynamic routing modules** that supported real-time trade data streaming with seamless navigation.
* Integrated **REST and GraphQL APIs** to fetch and render financial insights, ensuring compliance with regulatory data security practices.
* Enhanced **accessibility features (WCAG standards)** for banking applications to improve inclusivity and meet compliance.
* Mentored a team of junior developers by conducting **code reviews, pair programming, and design walkthroughs**.
* **Led the migration of core banking dashboards into a Micro Frontend architecture**, decomposing monolithic React apps into modular, domain-driven components that could be developed and deployed independently.
* Worked closely with **stakeholders and product owners** to refine backlog items and align technical goals with business objectives.
* Configured Webpack and Babel for optimized bundling and polyfills
* Improved developer productivity by setting up **automated CI/CD pipelines with Jenkins and GitHub Actions** for micro-frontend deployments.
* Designed **unit and integration tests with Jest and React Testing Library**, increasing coverage and reducing regression defects.
* Implemented **real-time notification systems** using WebSockets for trade alerts and portfolio changes.
* Ensured secure integration by implementing **JWT authentication and role-based access control** for sensitive financial modules.
* Conducted **performance audits with Lighthouse** and optimized rendering, reducing application load time by 30%.
* Integrated **MongoDB-based caching layer** through BFF services for optimized data retrieval and faster API response times in portfolio dashboards.
* Utilized **Zustand** to manage lightweight application state in dashboard widgets, reducing Redux boilerplate and improving render performance.
* Developed and maintained **Node.js middleware APIs** to connect micro frontends with backend microservices, ensuring seamless data aggregation.
* Implemented **end-to-end tests with Playwright** for validating user workflows such as trade summary, portfolio filtering, and real-time notifications.
* Collaborated with DevOps to containerize React micro frontends using **Docker and Kubernetes**, enabling consistent deployments across multiple environments.
* Implemented **CloudFront CDN caching and browser-level cache-control policies**, which significantly improved performance of high-traffic banking dashboards and reduced latency for static asset delivery.
* Integrated **ADA-compliant components (WCAG 2.1 standards)** by enhancing keyboard navigation, ARIA attributes, and contrast ratios to support accessibility across browsers.
* Partnered with SEO specialists to **optimize meta-tag structures, link rel attributes, and structured schema data**, improving organic search rankings and page-crawl efficiency.
* Collaborated with enterprise content teams to **explore AEM (Adobe Experience Manager) headless CMS integration**, enabling dynamic content publishing within the Next.js framework.
* Conducted **cross-browser compatibility testing** across Chrome, Edge, Safari, and Firefox using BrowserStack, ensuring consistent layout rendering and functional parity.
* Deployed **frontend microservices on AWS EKS** with automated scaling policies, integrating performance monitoring via CloudWatch dashboards.
* Collaborated with UX teams to introduce **Tailwind CSS and Styled Components**, improving maintainability of the design system.
* Partnered with QA engineers in **Agile ceremonies**, actively contributing to sprint reviews, retrospectives, and client demos.
* Delivered **highly available and fault-tolerant deployments** on AWS EKS with automated scaling strategies.

**Ally Financial – Michigan – Apr 2020 – Aug 2023 | Frontend Developer**

* Built **customer self-service portals using React.js and Next.js**, allowing secure loan applications and payment scheduling with streamlined workflows.
* Implemented **Next.js SSR rendering for financial calculators**, significantly improving page responsiveness and SEO rankings.
* Created **component libraries with reusable UI widgets** such as forms, dropdowns, and tables, reducing development effort across projects.
* Designed **Redux-based global state management** for payment tracking and loan approval systems, reducing complexity.
* Integrated **REST APIs from multiple backend services** into a BFF layer, improving efficiency and data consistency across the platform.
* Developed **custom hooks** for session management, API polling, and form validation, improving developer productivity.
* Integrated **MongoDB collections** for managing user preferences, application history, and cached responses to improve page reload speeds.
* Created **custom hooks using Zustand** for managing transient UI state in financial calculators and form validations.
* Collaborated with QA automation teams to introduce **Cypress for end-to-end testing**, validating payment workflows and multi-step form submissions.
* Implemented **Node.js-based data transformation utilities** to pre-process REST API responses before rendering in client components.
* Enhanced **cross-browser compatibility** and responsive design by using custom CSS media queries and flexbox/grid tuning for financial calculators and dashboards.
* Integrated **CloudFront CDN and HTTP cache-headers** for frequently accessed components, improving Time-to-First-Byte (TTFB) and overall UI responsiveness.
* Worked with the content engineering team to **integrate CMS-driven dynamic content modules** using AEM templates, improving marketing agility without code redeployment.
* Strengthened test coverage by introducing **Jasmine and Karma frameworks** alongside Jest to support regression testing across modules migrated from Angular to React.
* Designed **performance profiling and bundle analysis dashboards** using Webpack and Lighthouse reports to identify slow-loading dependencies and optimize rendering paths.
* Introduced **styled-components and CSS-in-JS solutions**, allowing the design team to implement brand-consistent themes.
* Partnered with **stakeholders** to gather requirements for new features like digital payment reminders and real-time account status updates.
* **Designed shared UI component libraries** consumed across different micro frontends, ensuring visual consistency and reducing redundant code across multiple financial applications.
* Implemented **secure authentication flows** using OAuth2.0 and multi-factor authentication (MFA).
* Worked on **AWS Lambda functions** to support asynchronous transaction processing with reduced server overhead.
* Conducted **code optimization and performance tuning**, which reduced bundle size and improved initial load times.
* Assisted in migration from legacy Angular.js applications to **React with Next.js**, ensuring minimal downtime.
* Developed **Jest unit test suites** covering form submissions, loan workflows, and API responses to ensure robust validation.
* Participated in **Agile planning and sprint ceremonies**, actively discussing priorities and dependency management.
* Collaborated with DevOps team to create **CI/CD workflows in Azure DevOps**, automating deployments across test and production environments.

**UnitedHealth Group – Minnesota – Aug 2018 – Apr 2020 | Frontend Developer**

* Developed **React.js SPAs for healthcare enrollment and claims processing**, streamlining user navigation with minimal re-renders.
* Implemented **Next.js routing modules** for provider directory searches with advanced filters and pagination.
* Integrated **REST APIs from internal healthcare systems** to display patient records and claims data securely.
* Designed **state management solutions using Context API** for smaller apps to avoid over-engineering with Redux.
* Designed and implemented **Node.js-based proxy APIs** for secure communication between healthcare frontends and internal patient data services.
* Utilized **MongoDB** for storing session tokens and caching provider search results, reducing backend load.
* Conducted **cross-browser and accessibility testing** with Playwright automation suites, ensuring compliance with WCAG and HIPAA standards.
* Collaborated with **healthcare compliance teams** to ensure HIPAA compliance in all frontend integrations.
* Optimized large data rendering using **virtualized lists and memoization techniques**, reducing lag in claim dashboards.
* Introduced **Tailwind CSS** to create consistent designs and improve collaboration with UI/UX designers.
* Built **unit and integration tests with Jest** for critical components like enrollment forms and claims search modules.
* Integrated **reverse-proxy caching and API response memoization** techniques to minimize redundant backend calls and speed up healthcare claim retrieval.
* Collaborated with accessibility auditors to **implement ADA-compliant healthcare forms and navigation flows**, improving usability for screen-reader users.
* Introduced **cross-browser compatibility testing pipelines** via GitLab CI, automating validation for browser-specific CSS and JavaScript inconsistencies.
* Developed internal **UI performance monitoring dashboards** for React apps, helping product owners track render efficiency and component load metrics.
* Partnered with cross-functional Agile squads to refine features like real-time claim status tracking.
* Worked on **role-based access controls** for healthcare admin modules to maintain data confidentiality.
* Enhanced deployment pipelines by integrating **GitLab CI/CD with Dockerized React apps**.
* Mentored junior developers in **best practices of React Hooks and component reusability**.

**Amazon – Hyderabad, India – May 2013 – Nov 2016 | Software Developer**

* Built **React-based dashboards for internal inventory tracking**, replacing legacy JSP modules.
* Developed **Next.js prototypes for product detail pages** to experiment with server-side rendering.
* Integrated **REST APIs with internal catalog systems**, ensuring real-time product availability and pricing updates.
* Enhanced internal **inventory dashboards** by integrating **MongoDB** for real-time stock tracking and analytics aggregation.
* Worked with **Node.js and Express APIs** to deliver RESTful endpoints for catalog updates and product metadata management.
* Automated regression checks for product workflows using **Cypress**, ensuring stable checkout and cart functionalities.
* Collaborated with SEO engineering teams to **implement search-optimized product pages** with pre-rendered metadata, structured JSON-LD tags, and canonical URLs for improved discoverability.
* Integrated **AWS CloudFront CDN** and image optimization pipelines to accelerate product page rendering globally.
* Participated in **frontend architectural decision-making** for React/Next.js prototypes, evaluating trade-offs between SSR and CSR for scalability and maintainability.
* Worked on **Redux state management** for cart and checkout modules, improving consistency.
* Collaborated with backend teams to build **Node.js services** for processing high-volume product requests.
* Designed **custom hooks** to handle inventory updates and product filtering logic.
* Implemented **styled-components** to align frontend with Amazon’s evolving design guidelines.
* Partnered with **QA engineers** to define acceptance criteria and test cases for shopping workflows.
* Wrote **Jest and Enzyme test cases** to validate catalog search and cart checkout modules.
* Contributed to **Agile sprint reviews and demos**, showcasing product features to internal stakeholders.

**EDUCATION**

* Bachelors in Computer Science at Jawaharlal Nehru University, 2013.
* Masters in Computer and Information Science at University of Alabama at Birmingham, 2019