

CURRICULUM VITAE

SARAVANAN MOHAN

Frontend Framework Engineer • AI Tools Pioneer • Continuous Learner

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PROFESSIONAL PROFILE

Innovative Frontend Framework Engineer with 5+ years of experience architecting enterprise-grade internal frameworks and pioneering AI-powered developer tools. Winner of Lowe's Design to Code Hackathon for innovative design-to-code automation. Led organization-wide CI/CD migration from Jenkins to LOCI and built cutting-edge AI tools including MCP for design systems. Expert in React 18, adapter-based architecture, NX monorepo, microfrontend patterns, and full-stack development. **Core Strengths:** Continuous learner with insatiable curiosity • Initiative-taking innovator who creates opportunities • Completion-focused professional delivering measurable results • Team enabler through mentorship and tool creation • Cross-functional thinker leveraging diverse background from marketing and data analytics to engineering excellence.

CORE COMPETENCIES

- Enterprise Framework Architecture • AI-Powered Developer Tools • CI/CD Pipeline Migration
- Adapter-Based Architecture • NX Monorepo Optimization • Plugin-Based Architecture
- Technical Leadership & Mentorship • Design-to-Code Automation • Security Architecture
- Technical Documentation • Cross-Functional Collaboration • Agile & DevOps Methodologies

PROFESSIONAL EXPERIENCE

Frontend Framework Engineer

Lowe's Companies, Inc. | Bengaluru, India | September 2022 - Present

Key Achievements:

- **Design to Code Hackathon Winner:** Won Lowe's prestigious Design to Code Hackathon by proposing an innovative solution to automate design-to-code conversion. Led the end-to-end development of the tool that transforms Figma designs into production-ready React code. Reduced UI development time by 60% and revolutionized developer productivity. Delivered comprehensive full-day demos to 200+ engineers and business stakeholders, showcasing its impact on developer velocity and workflow efficiency.
- **Enterprise CI/CD Migration Leadership:** Led organization-wide migration from Jenkins to LOCI (Lowe's internal CI/CD platform), impacting 100+ engineering teams. Reduced deployment time by 40%, improved pipeline reliability to 99.5%, and standardized deployment practices across the organization. Created comprehensive starter projects automating developer workflow from Stash creation to deployment, dramatically reducing onboarding time and establishing best practices.
- **Hackathon Excellence:** Won 1st place in company hackathon (2025) and secured 7th place in retail price-matching automation challenge (2024, team effort). Developed innovative solutions addressing real business problems including automated competitor price verification system that reduces manual checkout time for store associates by automating price matching across multiple sources.

Core Responsibilities:

- **Framework Architecture:** Architected and maintained enterprise-grade React 18 internal framework using adapter-based and plugin-based architecture, serving 50+ development teams. Implemented seamless plugin-based extensibility enabling rapid feature distribution across the organization. Designed and executed comprehensive framework analysis of both core frameworks and meta-frameworks, evaluating performance, bundle size, and developer experience to guide technology decisions.
- **AI-Powered Innovation:** Pioneered development of MCP (Model Context Protocol) for internal design system, bringing intelligent context awareness to developer workflows. Built Price Matching Website using Claude and ChatGPT APIs, integrating AI capabilities directly into the development environment. Improved developer productivity by 45% through intelligent code generation, automated documentation, and context-aware suggestions. Set new standards for AI-enhanced developer tooling within the organization.
- **Monorepo Migration:** Successfully migrated complex monorepo from Lerna to NX, improving build performance by 70% and transforming developer experience through intelligent caching, dependency graph optimization, and affected testing strategies. Implemented workspace generators using Yeoman for consistent project scaffolding and automated code generation across teams.
- **Authentication & Security:** Integrated ForgeRock authentication seamlessly across three Node.js server frameworks (Express, Fastify, Hapi), creating unified authentication strategy for microservices architecture. Implemented SSO, role-based access control, and secure session management. Strategically resolved critical Snyk vulnerabilities by

demonstrating and implementing architectural improvements, reducing security issues by 85% through design pattern optimization and secure coding practices.

- **Developer Tooling & Automation:** Created comprehensive starter projects and Yeoman generators automating entire developer workflow from Stash repository creation to production deployment. Reduced onboarding time from 2 weeks to 2 days, significantly improving new developer productivity and standardizing project setup across teams. Established developer portals using Backstage and TechDocs for centralized documentation and tool discovery.
- **Technical Leadership:** Mentored and onboarded 15+ engineers across all levels (junior to senior engineers and team leads). Conducted comprehensive knowledge transfer sessions on framework architecture, design patterns, and best practices. Created detailed technical documentation and video tutorials. Delivered full-day demos showcasing design-to-code tool and internal framework capabilities to cross-functional teams including engineers, product managers, and business owners.
- **High-Traffic Support:** Provided critical BFCM (Black Friday Cyber Monday) support, ensuring 99.9% uptime during peak traffic periods handling 10M+ requests. Implemented performance optimizations, real-time monitoring solutions, and incident response protocols. Collaborated with cross-functional teams to ensure smooth operations during highest traffic events of the year.
- **Rendering Technologies:** Explored and implemented advanced rendering and hydration technologies to optimize application performance and user experience. Evaluated SSR, SSG, ISR, and CSR patterns for optimal performance characteristics. Built proof-of-concepts demonstrating performance improvements and shared findings with engineering teams.

Senior Software Engineer

Infosys Limited | Chennai, India | October 2020 - September 2022

- Led migration of 5 legacy Silverlight applications to modern Angular 8 framework, modernizing codebase for applications serving 50,000+ users. Planned and executed phased migration strategy minimizing downtime and ensuring business continuity.
- Transformed Figma designs into pixel-perfect, responsive UIs using Angular Material and custom components. Reduced design-to-development handoff time by 50% through streamlined workflows and reusable component library.
- Established comprehensive design system with 40+ reusable components, improving development consistency and reducing code duplication by 40%. Created detailed component documentation and usage guidelines.
- Implemented state management using RxJS and NgRx, optimizing application performance and data flow. Introduced reactive programming patterns that improved application responsiveness and maintainability.
- Collaborated with cross-functional teams including designers, product managers, and backend engineers to deliver high-quality features on schedule. Participated in code reviews and established coding standards for the team.

MERN Stack Training

Newton School | Intensive Bootcamp | 2020

- Completed intensive full-stack web development training focused on MERN stack (MongoDB, Express.js, React, Node.js). Built multiple full-stack projects from scratch including e-commerce platform, social media application, and task management system.
- Mastered modern JavaScript (ES6+), asynchronous programming, RESTful API development, database design, authentication, and deployment strategies. Gained hands-on experience with cloud platforms and CI/CD pipelines.
- This intensive training provided the technical foundation that enabled successful transition into professional frontend framework engineering, establishing core skills in React development, API integration, and full-stack thinking.

Software Engineering Intern

Infosys Limited | Chennai, India | 2020

- Developed full-stack applications using Angular, .NET Core, MSSQL, and Entity Framework Core. Delivered 3 production-ready features within timeline and quality standards, demonstrating ability to work with enterprise technology stack.
- Built RESTful APIs with comprehensive authentication, authorization, input validation, and error handling following industry best practices. Implemented secure API endpoints with proper data sanitization and error logging.
- Participated actively in agile ceremonies including sprint planning, daily standups, code reviews, and retrospectives. Demonstrated strong collaboration skills and ability to work effectively in team environment.
- Wrote comprehensive unit tests and integration tests achieving 85% code coverage. Learned test-driven development practices and quality assurance methodologies.

Marketing Intern

Cognitive Edu | India | January 2019 - March 2019

- Exceeded sales targets by 200%, successfully enrolling 12 students (vs 6 goal) and generating ₹13,500 in course sales revenue. Demonstrated initiative and results-driven approach.

- Developed skills in inside sales, cross-functional team leadership, business strategy, public speaking, and B2C customer engagement. This experience enhanced communication and persuasion skills valuable in technical presentations.

Data Analyst Intern

Takenmind Inc. / Chennai, India / November 2018 - December 2018

- Performed comprehensive data analytics and visualization using Python, NumPy, Pandas, and Matplotlib on large datasets. Cleaned, transformed, and analyzed employee data to identify patterns and trends.
- Led Employee Attrition Project utilizing machine learning algorithms (Random Forest, Logistic Regression) with Scikit-learn to predict employee turnover. Achieved 82% prediction accuracy and identified key factors contributing to attrition.
- Documented comprehensive research findings and presented actionable insights to management team. This experience established foundation for data-driven decision making in engineering roles.

Digital Marketing Intern

Internshala / Chennai, India / June 2018 - July 2018

- Completed comprehensive training in web analytics, email marketing, SEO, and content marketing strategies. Learned Google Analytics, keyword research, on-page and off-page optimization techniques.
- Learned search, display, video, and mobile marketing techniques across multiple platforms including Google Ads, Facebook Ads, and YouTube. Understood campaign optimization and ROI measurement.
- Practiced social media marketing techniques including content strategy, audience engagement, and campaign optimization. This diverse marketing background enhances ability to understand user behavior and optimize frontend experiences for better engagement.

EDUCATION

Full Stack Web Development - MERN Stack

Newton School / Intensive Bootcamp / 2021

- Completed intensive full-stack web development training covering MongoDB, Express.js, React, Node.js, RESTful APIs, authentication, deployment, and modern web development best practices. Built multiple production-grade projects demonstrating full-stack capabilities.

Bachelor of Engineering

Panimalar Engineering College / 2016 - 2020

- Relevant Coursework: Data Structures, Algorithms, Database Management Systems, Software Engineering, Web Technologies, Computer Networks, Object-Oriented Programming, Operating Systems

TECHNICAL SKILLS

Frontend Technologies:

React 18 (Hooks, Context API, Custom Hooks, Server Components) • Angular 8+ (Services, Directives, RxJS, NgRx) • TypeScript • JavaScript (ES6+) • HTML5 • CSS3 • Webpack • Module Federation • Microfrontends • Rendering and Hydration Technologies (SSR, SSG, ISR, CSR) • Responsive Design • Web Components

AI & Automation:

Claude API Integration • ChatGPT API • MCP (Model Context Protocol) Development • AI-Powered Code Generation • Figma-to-Code Automation • Design Automation Tools

Backend Technologies:

Node.js • Express • Fastify • Hapi • .NET Core • C# • ASP.NET • RESTful APIs • Microservices Architecture

Databases:

MongoDB • MSSQL • PostgreSQL • Entity Framework Core

DevOps & CI/CD:

LOCI (Lowe's CI/CD) • Jenkins • Git • Stash • Docker • Azure DevOps • Continuous Integration • Continuous Deployment

Build Tools & Monorepo:

NX Monorepo • Lerna to NX Migration • Webpack • Rollup • Vite • Yeoman • npm • Yarn • pnpm • Build Optimization

Architecture & Design:

Adapter-Based Architecture • Plugin Architecture • Microfrontend Architecture • Microservices • Design Patterns • SOLID Principles • Clean Architecture • Domain-Driven Design • Framework Analysis

Security & Authentication:

ForgeRock • OAuth 2.0 • JWT • SSO • RBAC • Security Best Practices • Snyk • Vulnerability Management

Developer Tools:

Backstage • TechDocs • Storybook • Figma • VS Code • Chrome DevTools • Postman • ESLint • Prettier

Data Science & Analytics:

Python • NumPy • Pandas • Scikit-learn • Machine Learning • Data Visualization

Digital Marketing & Analytics:

SEO • Google Analytics • Web Analytics • Email Marketing • Social Media Marketing • Content Strategy • Campaign Optimization

CERTIFICATIONS & AWARDS

- **Design to Code Hackathon Winner** - Lowe's Companies, Inc. (2025)
- **1st Place - Internal Hackathon** - Lowe's Companies, Inc. (2024)
- 7th Place - Retail Price-Matching Automation Challenge - Lowe's Companies, Inc. (2023)
- Digital Marketing Certification - Google & Internshala (2018)

PUBLICATIONS & COMMUNITY CONTRIBUTIONS

- **Technical Blog:** Author of 'The Complete Frontend Performance and Architecture Guide' - A comprehensive guide covering performance optimization techniques, architectural patterns, and best practices for building enterprise-scale applications. Published on frontend-frameworks.hashnode.space, helping 1000+ developers optimize their applications. Active contributor sharing experience-driven insights, real-world lessons, and practical solutions to common frontend challenges.
- **Open Source & Community:** Active contributor to frontend community through blog posts, code samples, and sharing experience-driven insights on modern web development practices. Focus on making complex technical concepts accessible to developers at all levels.
- **Mentorship:** Mentored 15+ engineers at various levels, conducting knowledge transfer sessions, code reviews, and providing guidance on best practices and career development. Created comprehensive onboarding documentation and video tutorials for new team members.

PROFESSIONAL DEVELOPMENT & CORE VALUES

- **Continuous Learner:** Always exploring new technologies, frameworks, and methodologies. From digital marketing to data analytics to cutting-edge AI tools—curiosity drives constant skill expansion and staying ahead of industry trends. Regularly attend tech conferences, webinars, and workshops to stay current with emerging technologies.
- **Initiative Taker:** Don't wait for opportunities—create them. Whether proposing innovative solutions like the design-to-code tool or leading organization-wide migrations, consistently take ownership and drive projects from concept to completion. Proactively identify problems and develop solutions before being asked.
- **Completion Focused:** Committed to seeing every initiative through to the end. From hackathons to enterprise migrations to technical blogging, consistently deliver results and ensure successful implementation. Strong project management skills ensure timely delivery without compromising quality.
- **Team Enabler:** Success is a team sport. Through mentorship, knowledge transfer, full-day demos, and creating developer tools, consistently empower others to succeed. Goal is to elevate entire teams, not just individual contributions. Foster collaborative environment where everyone can thrive.
- **Curious Explorer:** Diverse background—from digital marketing to data analytics to frontend engineering—reflects endless curiosity. Explore beyond immediate domain to bring fresh perspectives to technical challenges. Cross-functional experience enables unique problem-solving approaches.
- **Innovation Champion:** From winning the Design to Code Hackathon to building AI-powered tools to leading CI/CD transformations—passionate about finding innovative solutions that create lasting impact and push boundaries. Always looking for ways to leverage new technologies to solve old problems.

REFERENCES

Personal Portfolio : <https://www.saravananm.dev/>

Blogging Website : <https://frontend-frameworks.hashnode.space/default-guide/v1.0?t=1761913162909>