

# Mani Harsha Masina

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## Summary

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Full Stack Developer with 3+ years of experience designing and developing secure, scalable web applications using Java, Spring Boot, React.js, and RESTful APIs. Hands-on expertise building dynamic frontends with Next.js, WebRTC-based real-time features, and microservices deployed across AWS with Docker and Kubernetes. Skilled in event-driven architectures, database optimization, CI/CD automation, and cloud-first backend engineering. Strong collaborator with a track record improving system performance, reducing manual effort through intelligent automation, and delivering high-quality user experiences in Agile environments.

## Technical Skills

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**Programming Languages:** Java (J2EE), Python, JavaScript (ES6+), TypeScript, Go

**Frontend Technologies:** React.js, Next.js (App Router), Angular, Vue.js, Vite, HTML5, CSS3, Bootstrap, TailwindCSS (v4), Jinja Templates, Responsive UI Design, Component-Based Architecture, Radix UI, Lucide, Sonner, WebRTC, WebSockets

**Backend Frameworks:** Spring Boot, Spring MVC, Spring Batch, Spring Security, Flask, Node.js, Express.js, Microservices, SOA

**Databases & Storage:** MySQL, PostgreSQL, SQL Server, MongoDB, DynamoDB, Firestore, Firebase (Authentication & Admin SDK), Amazon S3, Spring Data JPA, Data Modeling, Query Optimization

**API & Web Services:** RESTful API Design, GraphQL, gRPC, Swagger UI, Postman, Axios, Apache Kafka, WebClient, HttpClient, Redux, Context API, Authentication/Authorization (OAuth, SAML SSO, JWT), API Best Practices, Vapi Web SDK (WebRTC call orchestration)

**AI / LLM & Speech Technologies:** ChatGPT SDK, Google Gemini (@ai-sdk/google), Deepgram (STT), ElevenLabs (TTS), LangChain, RAG

**DevOps & Deployment:** Docker, Kubernetes, AWS (VPC, EC2, IAM, SNS, RDS, Route 53, EBS, Lambda, ECR Fargate), Azure (Networking, Security Zoning), Azure DevOps, Nginx, Unicorn, Maven, Git, GitHub, Jenkins, GitHub Actions, Terraform, Ansible, CI/CD, Vercel Pipelines, Automated Build & Release Management

**Testing & Validation:** Postman (API Testing), Cypress, Selenium, JUnit, Jest, Mocha, PDFBox, APScheduler, Zod, Continuous Testing in CI/CD Pipelines, Code Reviews & Peer Collaboration

**Tools & Workflow:** IntelliJ IDEA, Visual Studio Code, Jira, Confluence, Agile, Scrum, Kanban, SAFe, Prometheus, Grafana, ELK Stack, Splunk, System Reliability Engineering (SRE Principles)

## Experience

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### CGI Inc., USA | Full Stack Developer

Feb 2025 – present

- Developed and deployed RESTful API Design using Java (Spring Boot) and MySQL for claim-related operations, applying Query Optimization to improve response efficiency and scalability.
- Improved backend processing performance, implementing OAuth 2.0, JWT, and RBAC to secure endpoints and enforce role-based access controls.
- Modernized UI workflows using React.js with Component-Based Architecture and centralized state handling via Zustand to reduce rendering overhead and improve accessibility.
- Implemented containerized microservices using Docker/Kubernetes and automated deployments using GitHub Actions and Azure DevOps, improving release consistency across environments.
- Enhanced system reliability by integrating logging and metrics pipelines via ELK Stack, Splunk, OpenTelemetry, and SRE principles for proactive performance monitoring.
- Conducted structured API Testing through Postman with CI pipeline validation for faster release cycles and minimized manual QA effort.
- Improved collaboration using Swagger UI-based documentation, Git branching strategies, and standardized Code Reviews to maintain code quality.
- Leveraged AWS (EC2, RDS, S3) with Automated Build & Release Management pipelines reducing manual maintenance overhead and improving uptime.
- Implemented distributed tracing with OpenTelemetry and correlation IDs across microservices, accelerating production issue resolution by ~40% and improving system reliability at scale.
- Strengthened cloud and application security by implementing zero-trust access policies, enforcing SSO with OAuth2/SAML, and integrating threat monitoring dashboards that improved proactive incident detection and reduced unauthorized access attempts.

## Cellix Bio Pvt Ltd, India | Full Stack Developer

Jan 2023 – Aug 2023

- Built and deployed a MERN stack (MongoDB, Express, React, Node.js) web application to manage over 250 patent families across 14 countries, streamlining global IP compliance and legal operations.
- Developed RESTful APIs in Node.js for patent data handling, integrated with MongoDB for high-performance data retrieval and scalability.
- Implemented Firebase Authentication with role-based access to secure sensitive legal data for admin, research, and legal teams.
- Created a centralized notification system using Node schedulers and AWS SES to automate reminders for 650+ patent annuity deadlines.
- Designed a robust advanced search and multi-filter system to simplify data navigation for legal teams, reducing retrieval time by 70%.
- Deployed the application on AWS EC2, integrated AWS S3 for storing 11,500+ patent-related images, and utilized Route 53 for DNS routing and uptime reliability.
- Set up monitoring using AWS CloudWatch to track performance metrics, error logs, and user behavior, enabling continuous optimization.
- Achieved 100% SEO score through best practices in frontend React optimization and metadata integration, significantly improving user engagement and discoverability.

## ValueLabs, India | Full Stack Developer

Mar 2021 – Dec 2022

- Designed and deployed microservices with Node.js and Spring Boot, enhancing responsiveness via Redis caching and secure data flows with OAuth & JWT integration.
- Improved data retrieval performance using Spring Data JPA and Query Optimization supporting complex filtering from MySQL/PostgreSQL with React.js frontends.
- Used Apache Kafka to enable real-time streaming for orders, ticketing, and notifications with Automated Build & Release Management to maintain consistency.
- Implemented PDFBox-based automation replacing manual validation processes and reducing SLA turnaround time.
- Utilized Drools-driven rule validation and secure email/SMS communication using API Best Practices.
- Maintained strong deployment reliability through Git workflows, Maven/NPM dependency governance, and collaborative Code Reviews.

## Education

### Masters in Information Technology

Aug 2023 – May 2025

Missouri University of Science and Technology, Rolla, Missouri

### Bachelors in Electronics and Communication Engineering

Jul 2018 – May 2022

The LNM Institute of information and Technology | Rajasthan, Jaipur

## Certifications

- AWS Certified Developer – Associate
- Business Analytics Certification
- Data Science Certification

## Projects

### Express Shuttle Services (Client and Admin)

- Designed and developed a responsive single-page web application for shuttle booking and management, integrating Firebase Email and OTP-based authentication for secure user access and admin control.
- Built robust booking and payment modules with PayPal API integration, achieving a 97% transaction success rate and improving ticket booking efficiency by 96%.
- Engineered an intuitive admin dashboard to manage routes, revenue, seat availability, and bookings; optimized mobile performance by reducing page load times by 60% and implemented advanced search filters for user-friendly ride lookups by Ticket ID, Payment ID, or contact info.

### TalkFlow | AI Voice Mock Interview Platform

- Built TalkFlow, a voice-first mock interview platform (Next.js 15, React 19, TypeScript, Vapi, WebRTC, Firebase) that auto-generates role-specific question sets and delivers automated scoring feedback, reducing manual review time by ~60% and enabling <10s scoring turnaround per session.
- Engineered real-time audio pipelines using Deepgram (STT) and ElevenLabs (TTS) with a live transcript ticker, achieving <350 ms median STT latency and ~95% transcript accuracy in testing, improving practice comprehension and reducing note-taking overhead across interviews.
- Designed a multi-tenant dashboard using Firestore to store interviews, transcripts, and AI feedback, supporting 25–40 Gemini-powered questions per session with 99.9% durable data retention.