

Bala Nagendra Kumar Kalavakollu

Senior MERN Stack Developer | Full-Stack Engineer

Senior MERN Stack Developer with 3.9+ years of experience building scalable web applications using MongoDB, Express.js, React.js, and Node.js. Built and maintained 40+ RESTful APIs, optimized database performance, and supported production systems used by 10k+ users.

WORK EXPERIENCE

- Designed and maintained MERN stack applications supporting 10k+ users across healthcare and SaaS platforms.
- Built and maintained 40+ RESTful APIs using Node.js and Express.js, handling high-throughput traffic with stable response times.
- Designed and optimized MongoDB schemas and indexes, reducing query latency by ~30–40% for critical endpoints.
- Implemented authentication and authorization using JWT, RBAC, and AWS Cognito.
- Integrated SMS, WhatsApp, Email, and SaaS APIs supporting messaging workflows for 100k+ users per day.
- Built asynchronous backend workflows using AWS SQS to reliably process high-volume background jobs during peak traffic.
- Troubleshooted and resolved production issues, reducing recurring incidents by ~25% through root-cause fixes.
- Followed Git-based workflows, participated in code reviews, and enforced best coding practices.
- Deployed and managed applications using Docker and PM2, with exposure to CI/CD workflows.
- Managed relational data using PostgreSQL with Prisma ORM, ensuring data consistency and optimized queries.
- Used TypeScript in frontend applications to improve type safety and reduce runtime errors.

EDUCATION

Intermediate, MPC

RK Junior College • GPA: 76%

Machilipatnam • 01/2016 – 01/2018

S.S.C

E.K Bala Bhanu Vidyalama • GPA: 8.7

Machilipatnam • 01/2016

CERTIFICATIONS

Freshdesk Omnichannel

Freshworks

Appreciation

Spritle Softwares

CCBP 4.0

NxtWave

PROJECTS

Healthcare B2C Platform – MERN Stack

02/2025 – Present

MTOMICS

- Built a MERN-based healthcare platform supporting multiple user roles (patients, doctors, advocates).
- Designed and maintained RESTful APIs using Node.js and Express.js, focusing on performance, security, and scalability.
- Implemented secure authentication, role-based access control, and API integrations.
- Optimized backend performance and ensured scalability using microservices architecture.
- Built asynchronous and event-driven backend workflows using AWS SQS, background workers, and queue-based processing.
- Designed and optimized MongoDB schemas, indexing strategies, and queries for high-traffic applications.

Saasly Website Development (saasly.in)

- Enhanced user experience and content accessibility, implementing SEO optimization and collaborating with marketing teams.
- Developed an app catalog feature with search, filtering, and pagination functionalities, improving user navigation and content presentation.

Plugins: Freshdesk, Zendesk, Zohodesk, Freshservice, Monday.com

SKILLS

Programming: JavaScript (ES6–ES12), TypeScript

MERN Stack: Express.js, MongoDB, Node.js, React.js

LANGUAGES KNOWN: English, Hindi, Tamil, Telugu

Frontend: CSS, HTML, Next.js, React.js, Redux, Tailwind CSS, TanStack Query

Backend: Authentication & Authorization (JWT, Express.js, Node.js, RBAC), REST API Development

Databases: MongoDB (Schema Design & Optimization), PostgreSQL, Prisma ORM

Real-Time & Integrations: Email, SaaS platforms, Third-Party API Integrations (SMS), WhatsApp

DevOps & Tools: CI/CD basics, Code Reviews, Docker, Git, Linux, PM2

Cloud: AWS (Cognito,RDS), EC2, S3, SES, SQS

OTHERS: CI/CD & deployments, Data Structures & Algorithms, Deployment, Exploring new technologies, Git workflows & code reviews, GPT / AI integrations, Problem Solving, RESTful API development