

# Bala Nagendra Kumar Kalavakollu

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## **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

Sprite Software

Senior MERN Stack Developer / SDE I • Full-time

03/2022 - Present

Chennai, Tamil Nadu, India

- 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.
  - Troubled 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

Sprite Software

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](https://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