Raju Kumar Mandal

Backend / Full Stack Engineer

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GitHub — LinkedIn — Portfolio

Professional Summary

Backend-focused Full Stack Engineer with hands-on experience building scalable MERN and Java-based applications. Strong background in REST API development, real-time systems, database optimization, and backend performance tuning. Proven ability to improve system reliability, reduce processing latency, and deliver production-ready features in Agile environments. Solid foundation in Data Structures, Algorithms, and system design principles.

Technical Skills

Programming Languages: JavaScript, Java, SQL
Frontend Technologies: React.js, HTML5, CSS3, Tailwind CSS
Backend Technologies: Node.js, Express.js, Spring Boot
Databases: MongoDB, MySQL
Tools & Platforms: Git, Postman, JWT, Cloudinary, REST APIs, WebSocket
Core Competencies: Backend Architecture, API Engineering, System Design, Microservices Fundamentals, Performance Optimization

Professional Experience

Backend Developer   Oct 2023 – Apr 2024
Parabit Private Limited, Bhopal

- Engineered backend modules for a Blood Bank Management System handling **10,000+ records**, improving data accuracy by **30%**.
- Optimized SQL queries and relational schemas, reducing average query execution time by **35%**.
- Implemented real-time inventory synchronization across **12+ centers**, ensuring data consistency.
- Automated donor onboarding, blood expiry tracking, and reporting workflows, cutting manual effort by **40%**.
- Resolved high-priority production issues, decreasing system downtime by **40%** and improving reliability.
- Delivered backend features across **5 Agile sprints**, adhering to secure coding and REST standards.

Projects

Zerodha Clone – Real-Time Trading Platform

- Architected a full-stack trading platform supporting **real-time price updates** using WebSocket.
- Designed RESTful APIs to simulate order placement, portfolio management, and transaction history.
- Implemented JWT-based authentication and authorization for **1,000+ simulated users**.
- Reduced API response latency by **28%** through optimized backend logic and database indexing.

Tech Stack: React.js, Node.js, Express.js, MongoDB, WebSocket

Foodie App – Online Food Ordering System

- Architected a MERN-based food ordering platform with secure authentication and role-based access.
- Implemented cart, checkout, and order tracking workflows processing **500+ orders/day**.
- Improved order processing efficiency by **25%** through optimized API design.

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

StayEase – Airbnb-Style Booking Platform
- Designed a property booking system supporting **real-time availability** and secure reservations.
- Integrated Cloudinary for media storage and delivery, reducing image load time by **45%**.

Tech Stack: MERN Stack, Cloudinary

National Blood Bank Monitoring System (NBBMS)
- Developed a Java and SQL-based system for real-time blood inventory monitoring.
- Managed donor records and stock data exceeding **15,000+ entries** with high data integrity.

Education

Bachelor of Technology (B.Tech) – Computer Science   2023 – 2027
IES College of Technology, Bhopal
CGPA: 7.5

Achievements

- 4-Star rating on HackerRank in Data Structures and Algorithms
- Consistently recognized for strong debugging and backend problem-solving skills

Additional Information

- Actively seeking Backend Developer or Full Stack Intern opportunities
- Strong interest in scalable systems, backend performance, and distributed architectures