

Ritam Maty

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PROFESSIONAL SUMMARY

Backend and Full-Stack Engineer with production experience in distributed systems, AI-integrated applications, and cloud-native microservices. Designs and delivers scalable REST APIs, RAG pipelines, and real-time systems using Node.js, React, and Next.js — with end-to-end ownership across schema design, LLM orchestration, vector search, Kubernetes deployments, and CI/CD automation.

EXPERIENCE

iPROTECHS Commercial Solutions Pvt. Ltd.

Hyderabad, India

Junior Software Engineer — Node.js

Jun 2026 – Present

- Engineered production-grade RESTful APIs with layered request validation, centralized error-handling middleware, and modular service architecture — enabling scalable backend operations across multiple business domains.
- Designed MongoDB schemas and Mongoose data models with normalized entity relationships, enforcing integrity constraints and optimizing compound indexes for high-read query workloads.
- Integrated third-party REST APIs with OAuth-based authentication flow handling, response normalization, and resilient retry-with-backoff error recovery for fault-tolerant upstream communication.
- Drove code review cycles within agile sprint workflows, expanding Jest-based test coverage and systematically reducing technical debt across the shared Node.js codebase.

Freelance

Remote

Full-Stack Developer

- Architected and delivered Bavesta's Hotel & Restaurant — a production hospitality platform handling hotel bookings, restaurant reservations, and real-time admin operations at scale.
- Integrated Razorpay payment gateway with server-side HMAC cryptographic signature verification, enforcing atomic booking confirmation before persisting order state to MongoDB — preventing double-booking and fraud.
- Implemented a JWT-secured admin panel with Role-Based Access Control (RBAC), restricting room inventory, menu management, and reservation operations to authorized roles only.
- Deployed across Vercel, Render, MongoDB Atlas, and Cloudinary with environment-variable-based secrets management, enabling secure, zero-downtime production configuration across all services.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript

Frontend: React.js, Next.js, Tailwind CSS, Redux Toolkit, React Hook Form

Backend: Node.js, Express.js, REST API Design, Socket.IO, Server-Sent Events (SSE)

Databases: MongoDB, Mongoose, Pinecone (Vector DB), Redis

Authentication: JWT, OAuth 2.0, Role-Based Access Control (RBAC)

AI / LLM: RAG Pipeline Design, LangChain, Mistral AI, Google Gemini, Vector Embeddings, Semantic Search

Cloud / DevOps: Docker, Kubernetes, GitHub Actions, CI/CD Pipelines, Nginx, Vercel, Render, MongoDB Atlas, Cloudinary

System Design: Microservices Architecture, Caching Strategies, Rate Limiting, Load Balancing

Tools: Git, Postman, Jest, D3.js, Razorpay, GitHub Codespaces

PROJECTS

Cloud IDE | *Kubernetes-Based Cloud Development Environment* | 🐙 GitHub

- React, Node.js, Docker, Kubernetes, LangChain, Mistral AI, Socket.IO, Nginx, MongoDB*
- Architected a microservices system of four independently deployable services — authentication, AI assistant, request router, and sandbox orchestrator — each with dedicated Kubernetes manifests and well-defined inter-service communication contracts.
- Engineered dynamic Kubernetes pod provisioning to spin up isolated React/Vite sandbox containers per user session on demand, with automated namespace-scoped resource cleanup on session termination to prevent leakage.
- Integrated LangChain and Mistral AI for context-aware AI-assisted code editing, with suggestions streamed in real time via Server-Sent Events (SSE) — eliminating polling overhead and reducing perceived latency.
- Implemented bidirectional terminal access over Socket.IO with Nginx reverse proxy routing and containerized all services via Docker multi-stage builds with ConfigMaps and Secrets for secure configuration management.

DataNest AI | *AI-Powered Document Intelligence Platform* | 🌐 Live

- React, Node.js, MongoDB, Pinecone, Redis, Mistral AI, Google Gemini, D3.js*
- Designed a full RAG pipeline — document ingestion, adaptive chunking, vector embedding generation, and semantically ranked retrieval — producing grounded, hallucination-resistant LLM responses with citation traceability.

- Integrated Pinecone for high-dimensional approximate nearest-neighbor (ANN) search and architected dual-LLM inference support with Mistral AI and Google Gemini as interchangeable backends for runtime model selection and fault tolerance.
- Implemented Redis query-result caching with per-user rate limiting, reducing redundant LLM API calls and protecting backend throughput under concurrent load; surfaced usage analytics via interactive D3.js dashboards.

Doramon AI | *Scalable RAG-Based Multi-User Chat Platform* |  Live

- *React, Node.js, Express.js, MongoDB, Pinecone, Redis, Socket.IO*
- Implemented a vector-based RAG pipeline using Pinecone for semantic chunk retrieval, supplying contextually ranked results as LLM input to produce grounded, document-faithful responses with citation traceability.
- Engineered real-time multi-user chat over Socket.IO with room-scoped session management, enabling concurrent independent document-grounded conversations without cross-session interference.
- Applied Redis-backed response caching and JWT-based stateless authentication across all API routes, sustaining high concurrent throughput while enforcing user-scoped data isolation and preventing unauthorized access.

EDUCATION

Chaitanya Deemed to be University

Bachelor of Computer Applications (BCA)

Hyderabad, India

2023 – 2026

CERTIFICATIONS

Full Stack MERN Development — Sheryians Coding School