Sumesh J

Applied AI, Full-Stack (Backend & Frontend) & Distributed Systems Engineer

+91 6282973124 **sumeshsujesh1233@gmail.com** **LinkedIn** **GitHub** **Idukki / Kochi, Kerala**

SUMMARY

Applied AI & Full-Stack Software Engineer specializing in AI-integrated applications, RAG pipelines, MCP tooling, and event-driven distributed systems using Node.js, TypeScript, Python, React.js, PostgreSQL, and Redis. Experienced building high-concurrency architectures with RabbitMQ, Kafka, Docker, AWS, and Terraform to deliver low-latency, production-grade software.

SKILLS

Applied AI & GenAI: AI Agents, RAG, MCP, LLM API Integration, Prompt Engineering, AI-Assisted Development Workflows

Backend & Distributed Systems: Node.js, Express.js, Bun, Python, SQL, REST, gRPC, Socket.IO, Envoy API Gateway, Rate Limiting, Versioning, Zod, Auth (JWT, OAuth 2.0, Asymmetric Signing), RabbitMQ, Kafka, DLQ, Event-Driven Architecture, Saga & Outbox Patterns, Circuit Breaker, Idempotency Keys, Service Discovery, Load Balancing

Databases & Caching: PostgreSQL, MongoDB, MySQL, Firebase Firestore, Redis (Caching, Pub/Sub, Lua, TTL), Indexing, Query Optimization, Transactions, Sharding & Replication, KMS

Cloud, DevOps & Observability: AWS (EC2, ECS, EKS, S3, API Gateway, IAM, CloudFormation, Amplify), Docker & Compose (Multi-Stage), K8s (Pods, Deployments, Ingress, HPA), Terraform (IaC), GitHub Actions, GitLab CI/CD, Nginx, Git, OpenTelemetry, Prometheus, Grafana, Centralized Logging & Tracing, CloudWatch, Jest, k6, OWASP Top 10, RBAC

Frontend: React.js, TypeScript, JavaScript (ES6+), Redux Toolkit, TanStack (Query, Table, Virtual), Context API, Tailwind CSS, React Hook Form, Vite, WebSockets, SSE

Agile & Collaboration: Jira, Agile, Scrum, Sprint Planning & Ceremonies

PROJECTS

SpotQ — Distributed AI-Powered Queue, Reservation & Ordering Platform

spotq.site | GitHub

- Architected a microservices ecosystem spanning user, restaurant, queue, order, payment, and ML ETA prediction services routed via Envoy API Gateway for secure traffic management.
- Implemented asynchronous event-driven messaging via RabbitMQ alongside Redis caching and a Python ML ETA service (`spotq-ml-eta-service`) for real-time wait-time predictions.
- Provisioned cloud IaC with Terraform, containerized services with Docker, and automated multi-service deployment and observability workflows.

Bookent — High-Concurrency Event & Ticketing Backend

GitHub

- Engineered a high-concurrency ticketing backend handling simultaneous seat reservations using atomic Redis locking and real-time Socket.IO event synchronization.
- Architected modular RESTful APIs with JWT/OAuth 2.0 auth and idempotent PayPal payment workflows, accelerating feature delivery and test coverage via AI-assisted workflows.

EDUCATION

Full-Stack Software Engineering Program

Brototype

Kochi, India
Jul 2025 - Present

Higher Secondary Education

MES HSS Vandanmedu

Idukki, Kerala
Jun 2023 - Mar 2025

LANGUAGES

English (Proficient) **Malayalam** (Native)