

Rakesh G Sekhar

Senior Backend Engineer | Cloud Native & Distributed Systems | +917994398779 | iam.rakeshgsekhar@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

PROFESSIONAL SUMMARY

Senior Backend Engineer with 7+ years of experience building scalable distributed systems, cloud-native platforms, and deployment automation solutions. Strong expertise in Java, Spring Boot, Kubernetes, Docker, Kafka, CI/CD automation, observability, and production reliability engineering. Experienced in AWS environments, Kubernetes orchestration, canary deployments, infrastructure automation, and high-scale backend performance optimization.

CORE TECHNICAL SKILLS

Programming Languages: Java, Python, Scala.

Distributed Systems & Backend: Microservices, REST API design, Spring Boot, GraphQL (BFF), Event-driven systems (Kafka), Distributed Caching, High Availability, Concurrency, System Design

Data & Storage: PostgreSQL, MongoDB, Redis, Elasticsearch

Cloud & Infrastructure: AWS (EC2, EKS), Kubernetes, Docker, Helm, Terraform, CI/CD (Jenkins/Git CI) Automation, Canary Deployments, Cloud Native Architecture, Infrastructure Automation.

Observability: Prometheus, Grafana, AppDynamics, Kibana, Splunk, RCA, Incident Management.

Automation & Testing: Deployment Automation, API Automation Testing, E2E Testing (Cypress), Load Testing (Scala), Performance Testing (Lighthouse), Release Validation Automation.

AI-Assisted Development: OpenAI Codex, Claude Code, GitHub Copilot, Prompt Engineering, AI-assisted debugging, Automated code generation, Test generation, Developer productivity workflows

PROFESSIONAL EXPERIENCE

Cisco Systems India Pvt. Ltd. — Software Engineer (Grade 6)

Bangalore, India | 2021 – Present

- Reduced end-to-end request latency by **96%** by **eliminating redundant serialization/deserialization** in processing **~8K+ reports** per request and introducing **in-memory HashMap lookups**, reducing latency and memory spikes at scale.
- Led a **Java Spring Framework upgrade** across multiple critical backend services, resolving dependency conflicts and performance regressions while maintaining **zero downtime** in production.
- Designed and shipped a **high-impact Import/Export feature** for Webex Analyzer, enabling report sharing and improving customer workflows.
- Automated** Kubernetes-based deployments using **Helm charts** and CI/CD pipelines, **improving deployment consistency and reducing manual operational effort**.
- Played a key role in **enabling canary deployment strategies and traffic-routing mechanisms** for safe incremental production rollouts and rapid rollback support.
- Managed and debugged** production workloads on AWS EKS clusters, **reducing incident resolution time** through effective observability and operational debugging practices.
- Strengthened platform reliability** by **implementing monitoring, alerting, telemetry, and observability improvements** using **Prometheus and Grafana**.
- Built backend functional test automation** frameworks for **API and integration testing**, significantly **improving release confidence and reducing regression issues**.

- Introduced **automated load testing frameworks using Scala** to simulate production-scale traffic and proactively identify system bottlenecks.
 - Integrated **automated post-deployment validation and release verification into CI/CD pipelines**, reducing production-critical failures by **95%**.
 - **Handled production incidents, scaling challenges, and Kubernetes operational debugging** across high-scale distributed services.
 - **Improved engineering productivity** by leveraging **GenAI-assisted** coding tools for automated code generation, debugging, API test creation, and large-scale refactoring workflows.
-

IBS Software — Senior Software Engineer

Trivandrum, India | 2019 – 2021

- Led the design and implementation of a **Micro Frontend (MFE) architecture**, enabling independent development and deployment of core business modules.
 - Owned the design and development of a **Backend-for-Frontend (BFF) layer**, defining API contracts and aggregating data to efficiently support multiple frontend clients.
 - Re-architected legacy business modules (Cargo Booking, Flight Scheduling) from a monolithic stack to **Spring Boot-based microservices**, reducing code complexity by **40%** and increasing throughput by **35%**.
 - Reduced Internal Server Errors by **90%** through improved validation, error handling, and defensive programming in critical booking services.
-

OPEN SOURCE & SIDE PROJECTS

Trip Pilot — Cloud Native Travel Planning Platform

- Building a cloud-native travel planning platform using Spring Boot, PostgreSQL, Redis, Docker, JWT authentication, and API Gateway architecture.
- Designed containerized local development environments and scalable backend APIs with microservice-ready architecture principles.
- Implemented Redis-based caching strategies and secure authentication flows to improve API responsiveness and platform reliability.
- Designing Kubernetes-ready deployment architecture and CI/CD workflows for scalable cloud hosting.

Time Formatter (npm) - Designed and published a lightweight npm library for consistent, locale-aware time formatting.
- Focused on clean API design, documentation, semantic versioning, and backward compatibility.

EDUCATION

Bachelor of Technology in Computer Science
University of Kerala, Trivandrum | 2014