

AKHIL JOSHI

Senior Software Engineer | Java • Spring Boot • Microservices • Cloud • AI

Bengaluru, India | +91 70094 98574 | akhil.joshi707@gmail.com | linkedin.com/in/akhil-2727-joshi

PROFESSIONAL SUMMARY

Senior Software Engineer with over seven years of experience designing and scaling Java and Spring Boot microservices across banking, payments and healthcare platforms. Specializes in event-driven distributed systems built with Java 17/21, Spring Boot, Spring Cloud and Apache Kafka, applying Event Sourcing, CQRS, Saga and Domain-Driven Design to deliver high-throughput, low-latency and fault-tolerant services. Experienced in cloud-native delivery on AWS and Azure using Docker, Kubernetes, OpenShift, Terraform and Jenkins, with additional front-end capability in React and TypeScript. Now focused on AI-enabled backend engineering, spanning LLM and RAG integration, agentic workflows and locally hosted models, and owns services end to end from architecture through testing, observability and production support.

TECHNICAL SKILLS

Languages: Java 8/11/17/21, SQL, TypeScript, JavaScript (ES6+), Python

Java and Backend: Spring Boot, Spring Cloud, Spring Security, Spring Data JPA, Hibernate, Spring Batch, REST APIs, Microservices, Multithreading and Concurrency, JUnit 5, Mockito, Maven, Gradle, Node.js, NestJS

Architecture: Event-Driven Architecture, Event Sourcing, CQRS, Saga Pattern, Domain-Driven Design, Circuit Breaker, API Gateway, Distributed Caching, Idempotency, System Design

Messaging and Data: Apache Kafka, Redis, Elasticsearch, PostgreSQL, Microsoft SQL Server, MongoDB, DynamoDB, Amazon RDS, Cosmos DB

AI and GenAI: LLM API integration (OpenAI, Anthropic Claude), Retrieval-Augmented Generation (RAG), Vector Databases and Embeddings (pgvector, Chroma), LangChain, Model Context Protocol (MCP), Agentic and Multi-Agent Workflows, Prompt Engineering, Local LLM Inference with Ollama, AI-Assisted Development (Claude Code, Cursor, GitHub Copilot)

Cloud and DevOps: AWS (EC2, ECS, Lambda, S3, RDS, API Gateway, CloudFront, Cognito, Chime SDK), Azure (Functions, Logic Apps, App Service), GCP, Docker, Kubernetes, OpenShift, Terraform, Jenkins, GitLab CI

Observability and Front-End: Grafana, Kibana and ELK, Dynatrace, Distributed Tracing, 3scale, Postman; React, Redux, TypeScript, Next.js

PROFESSIONAL EXPERIENCE

Synechron

Apr 2024 – Present

Senior Software Engineer (Senior Consultant) • Client: Emirates NBD

- Payments platform:** Architected and delivered Java 17 and Spring Boot microservices for AANI instant payments, international transfers, direct remittances and NIUM integrations, applying Event Sourcing, CQRS and the Saga pattern to maintain transactional consistency across core banking systems.
- Event-driven processing:** Developed asynchronous Kafka producers and consumers for real-time transaction streaming, using idempotency keys, retry policies and dead-letter queues to achieve sub-second processing at sustained high throughput.
- Resilience and performance:** Introduced circuit breaker, bulkhead and Redis caching patterns that isolated downstream failures, reduced core banking calls and improved p99 API latency and transaction success rates.
- Service design:** Defined bounded contexts, REST and Kafka contracts and service boundaries for an end-to-end credit card delivery tracking platform spanning Emirates Islamic, Network International and Emirates Post.
- Cloud-native delivery:** Containerized services with Docker and deployed to OpenShift and Kubernetes through Jenkins CI/CD pipelines, instrumenting distributed tracing and Grafana and Kibana dashboards with SLO-based alerting.
- AI-assisted engineering:** Adopted LLM-based developer tooling (Claude Code, Cursor, GitHub Copilot) for code generation, refactoring and test authoring, and prototyped RAG services on locally hosted models via Ollama to keep sensitive data on-premise.

UnitedHealth Group (Optum)

Sep 2022 – Mar 2024

Senior Software Engineer • Optum Rx

- Real-time analytics platform:** Engineered Java and Spring Boot services with streaming consumers that processed e-commerce events into sales, inventory and customer behavior analytics.
- APIs and notifications:** Delivered REST APIs and event consumers powering personalized recommendations and real-time inventory, anomaly and suspicious-activity alerts across Azure Functions, Logic Apps, Cosmos DB, App Service and Notification Hubs.
- Administrative dashboard:** Built a React and TypeScript analytics dashboard for alert management and recommendation tuning, backed by secured REST endpoints.
- Quality and monitoring:** Strengthened reliability with JUnit 5 and Mockito coverage, automated CI quality gates and Dynatrace performance monitoring.

Deloitte

Mar 2021 – Aug 2022

Analyst • Clients: GE HealthCare, Vanguard

- Telemedicine platform (GE HealthCare):** Developed Java and Spring Boot microservices for appointment scheduling, secure messaging and remote patient monitoring on AWS ECS with RDS, S3, Lambda, API Gateway, CloudFront, Cognito and Chime SDK.
- Data and security:** Designed ingestion pipelines for wearable-device data and privacy-conscious video consultation workflows secured with token-based authentication.
- Front-end platform (Vanguard):** Migrated a custom CMS JavaScript router to TypeScript, established unit, integration and end-to-end test coverage, and streamlined Webpack, Babel, Jest and ESLint pipelines for web applications and shared libraries.

GlobalLogic

Nov 2018 – Feb 2021

Software Engineer

- Full-stack development:** Built REST service integrations and a React and Redux web portal over multi-endpoint REST APIs, owning component architecture and the Webpack and Babel build system.
- Agile delivery:** Contributed across the full SDLC: technical design, development, unit testing, performance tuning, test automation and production deployments.

EDUCATION AND CERTIFICATIONS

B.Tech, Electronics and Communication Engineering • Guru Nanak Dev University, Amritsar, India

2014 – 2018

Certifications: AWS Developer – Building on AWS (edX) • AWS Developer – Optimizing on AWS (edX) • React – The Complete Guide (Udemy)