

# Saurabh Singh

## Staff Engineer | Java, Spring Boot, Kafka, Redis, AI Platforms

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### PROFESSIONAL SUMMARY

Staff Engineer / Senior Technical Lead with 10 years of backend and platform engineering experience across Java, Spring Boot, Kafka, Redis, Camunda BPMN, AWS, and distributed microservices. Proven record modernizing monoliths into independently deployable services, building event-driven systems, reducing operational noise, and leading engineering teams through cross-functional delivery. Recent work includes agentic AI systems for autonomous BPMN failure triage, GitOps CI/CD on AWS ECS Fargate, and self-service onboarding platforms.

### CORE SKILLS

Languages/Frameworks: Java, Spring Boot, Go, Node.js, TypeScript, JavaScript, Express.js, NestJS, React.js, Next.js

Distributed Systems: Microservices, REST APIs, event-driven architecture, Kafka, Redis, RabbitMQ, Camunda BPMN

Cloud/Data/DevOps: AWS ECS Fargate, Docker, Kubernetes, PostgreSQL, MongoDB, Cassandra, GitHub Actions, Terraform, Datadog, JSM

AI/Leadership: LLM-based triage, agentic AI workflows, BDD/Gherkin automation, technical leadership, hiring, mentoring

### PROFESSIONAL EXPERIENCE

#### Senior Technical Lead, Zinnia | Jun 2025 - Present | Noida, India

- Lead platform engineering for Java, Camunda, AWS, and AI initiatives; guide a 5-engineer team across architecture, delivery, hiring, mentoring, and roadmap execution.
- Broke a 24+ module monorepo into independently deployable microservices on AWS ECS Fargate; used Traefik to preserve existing APIs and GitHub Actions for GitOps CI/CD, enabling zero-downtime rollout and independent team releases.
- Built and drove org-wide adoption of a Gherkin/BDD test framework for Camunda BPMN flows, enabling engineers to write plain-language tests and reducing QA setup bottlenecks.
- Lead delivery of a carrier onboarding Admin Console using Java, Camunda, and Next.js; reduced carrier setup from about 8 weeks to minutes through self-service, configuration-driven workflows and full audit trails.
- Built an agentic AI system that triages live BPMN failures across thousands of Camunda process instances; LLMs classify exceptions by root cause, process step, and source, generate remediation guidance, and use Redis caching for scale.
- Reduced 1,000+ Datadog alerts and dashboards to fewer than 100 high-value monitors; automated incident creation through Terraform, Datadog, and Jira Service Management.

#### Technical Lead, Router Protocol | May 2024 - May 2025

- Optimized a critical backend service, reducing transaction execution time from 16 seconds to under 1 second and improving system responsiveness.
- Designed and maintained a high-performance forwarder service for cross-chain transactions, handling 2M+ transactions and more than \$1B in total volume.
- Built event-driven microservices using Kafka and Redis for a blockchain indexing solution and improved distributed validator service releases for 40+ active validators.
- Developed a resilient fallback system for RPC endpoint failures and mentored junior engineers on distributed backend design.

#### Senior Software Engineer, CoinDCX | Jul 2022 - Apr 2024

- Contributed to architecture, low-level design, and implementation of backend features using Java, Node.js, and Go.
- Built a cold-custody wallet platform with HSM security and multi-signature support; designed a generic rule engine with about 30 ms response time.
- Developed custody services supporting 100K customers and 10K daily crypto deposit and withdrawal transactions.
- Delivered portfolio, PnL, and protocol deposit-withdrawal capabilities, including one urgent protocol launch completed in 3 days.

#### Senior Software Engineer, Jio Platforms Ltd | Apr 2021 - Jul 2022

- Developed backend modules for SMS header and template registration, delivery, and ingestion on one of the world's largest private blockchain platforms with 100 GB data volume.
- Integrated payment gateway and invoicing services for systems handling up to 10 lakh transactions per day.
- Designed and developed a file validation system that reduced validation processing time from 10 minutes to 8 seconds.
- Supported SMS delivery at peak scale of 450M messages per day and built a URL shortener generating 40 URLs/sec and reading 2,000 URLs/sec.
- Interviewed and mentored new engineering talent.

#### Blockchain & Full Stack Developer, Innominds | Jul 2019 - Apr 2021

- Designed and developed a BaaS platform provisioning Ethereum and Hyperledger Fabric networks across cloud environments, handling 10 transactions per second.
- Built a banking resiliency platform backing up 70% of US deposits and 55% of retail brokerage account details nightly to a blockchain platform.
- Developed client and server-side applications with Java, Spring, Node.js, and React.js; scaled services with Docker and Kubernetes.
- Wrote clean, scalable code with memory optimization and developed unit test coverage for testing and automation.

## **PROFESSIONAL EXPERIENCE**

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### **Blockchain & Full Stack Developer, TCS | Mar 2016 - Jul 2019**

- Designed and developed a document validation system using Drools rule engine and OpenCV, reducing processing cost by 73%.
- Set up blockchain environments, wrote and audited smart contracts, and deployed applications on internal and third-party servers.
- Built messaging services using JMS and Oracle WebLogic Server.

## **EDUCATION**

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B.Tech, Electronics & Communication Engineering | Uttar Pradesh Technical University | Jun 2011 - Jun 2015

## **CERTIFICATIONS**

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Blockchain and Introduction to Polkadot | Blockchain Architecture Design and Usecases

## **AWARDS**

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Star Performer of the Quarter, Jio | Technical Excellence Award, TCS