CHANDRAHAS THAKUR

Java Backend & Distributed Systems Engineer

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PROFESSIONAL SUMMARY

Robust **Java Backend Engineer** with **3+ years of experience** architecting high-throughput microservices, scalable RESTful APIs, and fault-tolerant distributed systems within low-latency FinTech and enterprise domains. Proven track record at the **National Payments Corporation of India (NPCI)** developing core checkout and authentication modules for BHIM UPI, handling massive transaction volumes under strict availability constraints. Expert in Java concurrency, the Spring Boot ecosystem, and event-driven architectures (Kafka, Redis), with a deep focus on multi-threaded performance tuning, JVM diagnostics, and real-time AI model ecosystem integrations.

CORE COMPETENCIES

- **Languages & Fundamentals:** Java (8/11/17), Advanced Multi-threading, Concurrency Models (CompletableFuture, Locks), Memory Management, Data Structures & Algorithms (DSA).
- **Frameworks & Microservices:** Spring Boot, Spring Cloud (Config Server, Refresh Bus, Service Discovery), Hibernate/JPA, RESTful API Design.
- **Distributed Systems & Caching:** Apache Kafka (Event Streams), Redis (Sentinel/Cluster management), Data Segregation, Distributed Locking, Outbox Pattern.
- **Databases & Storage:** PostgreSQL, SQL Server (SSMS), Query Optimization, Connection Pooling, Index Tuning, Transaction Management.
- **DevOps, AI Integration & Observability:** AWS (EC2, S3), Docker, AI Model API Integration, Vector Caching, Prometheus, Grafana metrics.
- **Testing & Engineering Practices:** Test-Driven Development (TDD), JUnit, Mockito, High-Load Performance Testing (JMeter, Gatling), JVM Profiling (VisualVM).

PROFESSIONAL EXPERIENCE

National Payments Corporation of India (NPCI) — *Senior Software Developer* • Mumbai, India • Nov 2024 – Present

- Engineered and scaled distributed Spring Boot microservices for core BHIM UPI user authentication and payment processing pipelines, consistently meeting a **99.99% system availability** benchmark while adhering to strict RBI/NPCI compliance frameworks.
- Designed and deployed 50+ secure, stateless RESTful APIs for the Merchant Plugin SDK and multi-aggregator integrations (Razorpay, Juspay); optimized JSON payload serialization by tuning Jackson ObjectMapper configurations to safely handle high-concurrency transaction bursts.
- Spearheaded the backend migration to a distributed **Redis Sentinel** setup, integrated **PostgreSQL** relational tracking layers, and tuned thread-pools via Java **ExecutorService** to **reduce core transaction latency by 25% – 40%**.
- Developed asynchronous event streaming topologies using **Apache Kafka** to decouple core transaction processing from logging modules; built downstream hooks to pass streaming data vectors asynchronously into an **AI-driven fraud detection model** for real-time risk scoring.
- Containerized microservices using **Docker** and deployed production configurations across scalable **AWS (EC2/S3)** infrastructure; automated system synchronization workflows while feeding telemetry data into Prometheus and Grafana dashboards.

CGI — *Associate Software Engineer* • Chennai, India • July 2023 – Nov 2024

- Developed enterprise-grade Spring Boot microservices for the eVA government procurement platform, implementing the **Transactional Outbox pattern** and idempotency keys to ensure data consistency across distributed service nodes.
- Profiled and refactored slow-running SQL Server queries and indexing schemas, significantly reducing database server CPU utilization and accelerating high-volume data retrieval operations for financial reporting.
- Conducted automated stress, load, and endurance testing scenarios using **JMeter and Gatling**; isolated and resolved thread-contention deadlocks and memory leaks by analyzing JVM thread dumps and heap dumps via **VisualVM**.

EDUCATION

Poornima Institute of Engineering and Technology, Jaipur, India — *B.Tech in Computer Science* • Aug 2019 – June 2023 (**Cumulative CGPA: 9.2 / 10.0**)

CERTIFICATIONS & ACHIEVEMENTS

- **Winner of Wizard Coding Competition** – Awarded the *Well Done Award* at NPCI for demonstrating exceptional algorithmic and data-structure problem-solving speed.
- **Best Team of the Quarter (FY 2024, Q2)** – Recognized for collaborating on zero-defect deployment of critical distributed payment integrations.
- **Ivalua Foundation (L1) & Configuration (L2)** – Completed platform training focusing on commercial workflow orchestration and data mapping architectures.