Rajat Sharma

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Summary

Backend and platform engineer with **5+ years** building microservices, event-driven systems and multi-tenant SaaS with **Java**, **Go**, **Spring Boot**, **Kafka**, **Cassandra** and **Kubernetes**, currently at **IBM**.

Technical Skills

Languages: Java, Go, Python, TypeScript, SQL, Scala, C++, Bash

Backend & Data: Spring Boot, FastAPI, Kafka, Redis Streams, Cassandra, PostgreSQL, Db2, MongoDB, Redis

Cloud & DevOps: Kubernetes, OpenShift, Docker, Helm, Tekton, Argo CD, Terraform, AWS, Jenkins

Observability & Testing: OpenTelemetry, Instana, Grafana, Loki, JUnit, JMH, Testcontainers, Pytest

Experience

IBM - Software Developer, Maximo Small SaaS — Markham, Ontario
Go, Python, Kubernetes, OpenShift, Helm, Tekton, Argo CD, Terraform, AWS, Db2, Next.js — *April 2026 – Present*

- Build a **multi-tenant Maximo Manage-as-a-Service** platform on **Kubernetes/OpenShift** across **19 container images** and **11 Helm charts**, with every change gated by Helm tests and **Tekton** pipelines.
- Re-keyed tenant identifiers to **enable tenant migration** between tenant groups, and automated **Amazon RDS Db2** setup with stored procedures, removing manual provisioning steps.
- Built a **Go tenant-health API** and a **Next.js SRE dashboard** showing provisioning and stuck tenants.
- Closed **SQL-injection** paths and Go CVEs, added secret scanning, and wrote **Terraform** for AWS accounts.

IBM - Software Developer, Envizi — Markham, Ontario
Java, Spring Boot, Python, Cassandra, Kafka, Redis, Kubernetes — *October 2024 – March 2026*

- Designed a **denormalized Cassandra schema** (**4 query-specific tables**) for hierarchical organization data, cutting lookup latency by **65%** across **4 production clusters**.
- Built a **Kafka monitoring service** for **30+ topics** and **500K+ events/day** with Redis-backed locking and alert deduplication, cutting alert noise by **90%** with sub-minute outage detection.
- Designed the **Navigation DSL API** with multi-level validation, idempotency and rollback on failure.
- Cut XBRL taxonomy loads from **5s to 1s** with LRU caching; patched **Kafka CVE-2025-27817** in **5+ services**.

Concordia University - Developer — Montreal, Quebec
Java, Spring Boot, Angular, MongoDB, Kubernetes — *September 2022 – January 2024*

- Cut deployment time and developer workload by **44%**; built **Spring Boot APIs** used by **12+ applications**.
- Sped up MongoDB retrieval by **20%**; **Golden Key Scholarship** for automation saving **100+ hours** a week.

Tejas Networks - Software Developer — New Delhi, India
Java, Spring Boot, Kafka, SQL — *August 2021 – August 2022*

- Modernized **TejNMS** with Spring Boot: **30%** better resource allocation, **20%** less manual recovery.
- Led a team of **3** migrating from **ActiveMQ to Kafka**, reducing processing time by **20%**.

Projects

LSM-KV Storage Engine | **GitHub** — October 2026
Java 21, Gradle, JUnit, JMH, Docker, Kubernetes

- LSM-tree key-value store built from scratch: CRC-checked **write-ahead log** with crash recovery, memory-mapped **SSTables** with **Bloom filters**, and streaming **k-way merge** compaction.
- **JMH**: **3 μs** writes; Bloom filters make missing-key lookups **17x** cheaper; API on **virtual threads**.

Loonie Ledger — October 2026
Java 21, Spring Boot, Python, FastAPI, TypeScript, Redis Streams, PostgreSQL, Kubernetes

- Neobank demo of **3 event-driven services in 3 languages**: a **double-entry ledger** with a **transactional outbox**; fraud and compliance on **Redis Streams** consumer groups.
- Idempotent handlers, ordered row locks against double spends, and a **SHA-256 hash-chained** audit log.

Education

Master of Applied Computer Science, Concordia University; GPA 3.6/4.3 — *Montreal | 2022 – 2024*
B.Tech, IT, Guru Gobind Singh Indraprastha University; GPA 3.9/4.3 — *New Delhi | 2017 – 2021*

Achievements

LeetCode Knight (2018), CodeChef 4 Star (1848), HackerEarth (1676); **Golden Key Scholar**.