



Overview

Results-Driven Backend Software Engineer with 2+ years of hands-on experience designing and delivering **scalable, cloud-native microservices** using **Java 17, Spring Boot, Spring Cloud, and event-driven architectures**, supporting high-volume, production-grade systems.



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ANKUSH SINGH

Backend Software Engineer | Java, Spring Boot & Cloud-Native Microservices Specialist



Core Competencies

Java / Spring Boot Backend Engineering

Event-Driven Architecture (Kafka)

Scalable API Design

Enterprise Security & IAM

Database Optimization & Caching

Resilience & Fault Tolerance

Payment Systems Integration

Test Automation & Quality Engineering



Education

- 2022–2023: Java Backend Development from Masai School, Bengaluru
- 2017–2021: Bachelor of Technology from Sagar Institute of Research & Technology, Bhopal
- 2015–2017: Higher Secondary Education from D.P.S., Hisar, Haryana



Personal Details

Crime & Risk Management System
Tech Stack: Java, JDBC, MySQL

Designed and developed a centralized crime analytics platform to automate data collection and analysis, reducing manual effort by **75%** and improving data accuracy by **90%**. Implemented structured management of crime records, case statuses, offender profiles, and hotspot analysis with **real-time reporting and searchable digital archives**, enabling faster & more informed law enforcement decision-making.



Profile Summary

- High-Performance API & Distributed Systems Expert**, with proven success in **latency optimization, throughput improvement, and fault tolerance**, leveraging **Kafka (exactly-once semantics), Redis caching, PostgreSQL optimization, and Resilience4j** for resilient, low-latency services.
- Secure Backend & Identity Management Practitioner**, experienced in **OAuth2, RBAC, Spring Security, and Keycloak-based authentication/authorization**, delivering **enterprise-grade security, multi-tenant access control, and compliance-ready integrations**.
- Payment & Transaction Systems Engineer**, skilled in **PCI-compliant payment gateway integrations** (Affirm, Adyen, UPI, Splitit, Northern Arc), building **modular adapters, settlement systems, and order management platforms** that significantly improve transaction success and conversion rates.
- Quality-First Agile Engineer**, strong in **automated testing (JUnit 5, Mockito, Testcontainers), database migration (Liquibase), observability (Grafana, Kibana, Instana), and clean code practices**, consistently reducing production defects and delivering maintainable, scalable software.
- Recipient of the Pixel Perfectionist Award (2025)** for consistently delivering high-quality, production-ready builds ahead of schedule, enabling seamless and risk-free deployments at upGrad.



Technical Skills

- Backend & Microservices:** Java, Spring Boot, REST APIs, Microservices
- Spring Ecosystem:** Spring Cloud, Spring Security, Spring Data JPA
- Databases & Caching:** PostgreSQL, MySQL, MongoDB, Redis
- Build & Tools:** Git, Maven, Gradle, Postman
- Frontend (Basic):** HTML, CSS, JavaScript
- Monitoring & Observability:** Grafana, Kibana
- ORM:** Hibernate, JPA
- Cloud:** Azure AKS, AWS (basic exposure)
- Testing & QA:** JUnit, Mockito, Testcontainers
- Security & Identity:** OAuth2, Keycloak, RBAC
- Messaging & Streaming:** Apache Kafka, AWS
- AI-Assisted Development:** GitHub Copilot, cursor



Work Experience

Since Jun'24 | upGrad Education Pvt. Ltd., Noida | **Software Engineer - Backend (Java | Spring Boot | Microservices)**

- Architected scalable service orchestration** handling 180k+ monthly enrollments with <200ms API latency, integrating NSDC APIs for automated enrollment and certificate management.
- Integrated multiple payment gateways** (Affirm, Adyen, UPI, etc.) via modular adapters, boosting transaction success rate by 15% while ensuring PCI compliance.
- Designed and deployed 12 Spring Boot microservices** on AKS with CI/CD pipelines, achieving zero-downtime deployments and doubling release velocity.
- Implemented robust data and security mechanisms**, including Kafka exactly-once semantics, RBAC with Keycloak, Resilience4j for fault tolerance, reducing sync defects by 30% and cascading failures by 40%.
- Optimized database, caching, and order/payment systems**, enhancing API throughput by 25%, enabling multi-tenant onboarding & increasing course enrollments by 38% with checkout completion up by 42%.

Aug'23 – Mar'24 | Aptitech Education, Noida | **Software Developer / Technical Trainer**

- Engineered scalable, secure, and container-ready Spring Boot microservices**, including RESTful APIs, asynchronous services, and RBAC-based multi-tenant access, optimizing backend performance and database workflows by up to 40%.
- Automated student assessment and attendance tracking**, reducing manual tasks by 70%, while training 1000+ students on system usage and best practices.