

# 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.