

Ayush Dhar

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SUMMARY

Software Engineer with 4+ years delivering scalable microservices using Java, Spring Boot, and SQL. Strength in clean code, system design, CI/CD, and event-driven systems. Drove 60% latency cuts and 35% failure reduction for global clients; mentored peers and supported production excellence.

EXPERIENCE

Teaching Assistant

Aug 2024 - May 2025

Introduction to Algorithms, Illinois Institute of Technology

Chicago, IL

- Conducted weekly recitations and office hours to reinforce best practices in algorithmic design and complexity analysis.
- Graded 30+ student assignments, exams, and evaluated their code quality while validating program correctness.

Software Developer

Nov 2018 - May 2023

HCL Technologies

Noida, India

- Reduced Cart Service latency by **60% using Java8, Spring Boot, and Microservices Architecture** via Redis caching, asynchronous promo validation with Kafka to decouple downstream services to result in smoother user experience during traffic spikes and improved RESTful APIs performance.
- Scaled Order Service for concurrency on AWS EC2 using idempotency keys, simplified Saga and outbox patterns to ensure data consistency across services stored on AWS S3.
- Developed core Inventory Service APIs with atomic stock checks and reservation logic and also integrating feeds via Kafka, and thus, reducing out-of-stock order failures by **35%**.
- Maintained clean, modular codebase following best practices (SOLID and design patterns), wrote thorough unit tests for critical workflows, mentored junior developers, and upheld production-readiness through code reviews.

Data Analyst

Apr 2017 - Jul 2018

Wipro Technologies

Delhi, India

- Implemented data-driven strategy to reduce customer churn in target regions.
- Worked on backend automation scripts to eliminate manual reporting workflows, **saving 15+ hours/week**, enhancing data-driven decision-making across key stakeholders.

PROJECTS

Patient Management System ([GitHub](#))

- Built a production-grade, cloud-deployable patient management system using a microservices architecture with Java Spring Boot, Docker, and PostgreSQL for modularity and scalability.
- Implemented both **REST** and **gRPC** protocols for inter-service communication, and Integrated **Kafka** for real-time patient event processing and decoupled service interactions, enabling asynchronous billing and analytics workflows.
- Designed and secured API Gateway with Spring Cloud Gateway, enforcing JWT-based authentication via a dedicated Auth service, and deployed system on simulated AWS cloud using LocalStack
- Tech Stack:** Java, Spring Boot, Kafka, Docker, gRPC, PostgreSQL, AWS (LocalStack), Rest Assured.

YouTube Clone – Cloud-Native Video Sharing App ([GitHub](#))

- Developed YouTube-like platform enabling **authenticated** users to upload and stream videos via secure signed URLs.
- Built an event-driven video processing pipeline using Cloud Pub/Sub, Cloud Run, and ffmpeg, supporting autoscaling.
- Tech Stack:** Node.js, Firebase Functions, Firebase Auth, Cloud Run, Firestore, Cloud Pub/Sub, FFmpeg.

EDUCATION AND CERTIFICATIONS

Illinois Institute of Technology

Chicago, IL

Masters in Computer Science, 3.72 GPA

Aug. 2023 – May 2025

Delhi Technological University (DCE)

Delhi, India

Bachelors, Electronics & Communication Engineering

Aug. 2012 – May 2016

TECHNICAL SKILLS

Languages & Frameworks: Java, Python, Spring/SpringBoot, REST, gRPC, SQL, HTML/CSS, JavaScript, Node

Cloud & Backend: AWS (EC2, S3, IAM, Elasticsearch, SQS, SNS, CloudWatch), GCP, Spring Cloud, Spring Security, Hibernate (ORM), Microservices, High-Concurrency, OAuth2, JWT, Redis, Kafka, NoSQL db

Databases & Data Analytics: MySQL, PostgreSQL, MongoDB, Elasticsearch, Cassandra, Tableau, PowerBI

DevOps & Tools: Git, Docker, Kubernetes, CI/CD, Jenkins, Terraform, Maven, JUnit, Mockito, Prometheus, Grafana, Jira