

ASHUTOSH JHA

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Portfolio · LinkedIn · GitHub · LeetCode

SUMMARY

Backend developer skilled in Java and Spring Boot, focused on building secure, scalable, and well-structured server-side systems. I have built production-style REST APIs with JWT authentication, RBAC, Redis-based rate limiting, and real-time messaging using WebSocket. Strong foundation in system design, clean architecture, and relational databases, with hands-on implementation across multiple full backend projects.

EDUCATION

Galgotias University

B.Tech, Computer Science and Engineering 9.31 CGPA (Current)

Indian Public School (CBSE)

Senior Secondary Education (PCM) 83.6%

Secondary Education 94%

Greater Noida, Uttar Pradesh

2022 – 2026

Madhubani, Bihar

2021

2019

TECHNICAL SKILLS

- **Languages:** Java, Python
- **Backend:** Spring Boot, Spring MVC, Spring Security, Spring Data JPA
- **Databases:** MySQL, PostgreSQL, Redis, H2 (testing), JPA/Hibernate
- **Security:** JWT (JJWT), BCrypt, Authorization Filters, RBAC
- **APIs:** RESTful API design, WebSocket/STOMP messaging
- **Tools:** Git/GitHub, Maven, Postman, HikariCP
- **Testing:** JUnit, Spring Boot Test, Integration Testing with H2

PROJECTS

Distributed Rate Limiter API — *Spring Boot 3.5.10, Java 21, Redis 7, Lua, Actuator* [Link]

- Built a stateless Spring Boot rate-limiter using Redis to enforce one global quota across instances.
- Implemented Sliding Window Log and Token Bucket with Redis ZSET/HASH for precise and burst-friendly limiting.
- Used Redis Lua scripts to perform atomic check-update operations, eliminating race conditions under high concurrency.
- Added interceptor + @RateLimited config, RFC headers, Retry-After, Actuator health checks, and fail-open mode.

E-Commerce Backend API — *Spring Boot 3, Java 21, MySQL, JWT* [Link]

- Built a full REST API for users, products, carts, orders, payments, and inventory using a clean 3-tier architecture.
- Implemented JWT authentication, BCrypt hashing, and role-based access (Admin/Manager/Customer).
- Added advanced product filtering, stock tracking with low-stock alerts, cart persistence, and complete order lifecycle.
- Integrated validation, global exception handling, and environment-based configuration.

Real-Time Chat Backend API — *Spring Boot 3.5.10, Java 21, PostgreSQL* [Link]

- Built REST APIs for users, chats, groups, and messages with a clean layered architecture.
- Implemented real-time messaging using WebSocket (STOMP over SockJS) for low-latency communication.
- Designed normalized PostgreSQL models for Users, Chats, and Messages with efficient indexing.
- Added JWT-based authentication, validation, and non-blocking request handling using HikariCP.

CERTIFICATIONS

Software Engineering — NPTEL (IIT Kharagpur) [View]

- Ranked in the **Top 5%** nationwide; awarded **Elite** certification with a score of 73%.

Compiler Design — NPTEL (IIT Kharagpur) [View]

- Ranked in the **Top 5%** nationwide; awarded **Elite** certification with a score of 75%.

HACKATHONS

Lumen Quest 2026 — **2nd Place** 2026

- Led the team and engineered the backend for a full-stack subscription management system, architecting the core business logic for plan transitions and telecom billing.

Galgotias International Hackathon (2024) 2024

- Led my team to develop a crash detection device for vehicles with real-time notifications to emergency contacts and national helplines.

SIH (2024) 2024

- Collaborated with my team on developing a solution for crop and plant disease detection using machine learning.