

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 <i>B.Tech, Computer Science and Engineering 9.31 CGPA (Current)</i>	Greater Noida, Uttar Pradesh <i>2022 – 2026</i>
Indian Public School (CBSE) <i>Senior Secondary Education (PCM) 83.6%</i> <i>Secondary Education 94%</i>	Madhubani, Bihar <i>2021</i> <i>2019</i>

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 — <i>Spring Boot 3.5.10, Java 21, Redis 7, Lua, Actuator</i>	[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 — <i>Spring Boot 3, Java 21, MySQL, JWT</i>	[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 — <i>Spring Boot 3.5.10, Java 21, PostgreSQL</i>	[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.	