

Harshit Singh

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Objective

Backend developer with expertise in Spring Boot microservices, RESTful API design, and containerized deployments. Proficient in building scalable systems with comprehensive testing using JUnit and Mockito.

Education

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| The Pillars Public School, Gorakhpur, Intermediate from CBSE | Apr 2021 – Mar 2023 |
| Pranveer Singh Institute of Technology, Kanpur, BTech (CSE) CGPA 8.17 | Oct 2023 – present |

Skills

Backend Development: Java, Spring Boot, Spring Security, Spring Data JPA, Hibernate, RESTful APIs, Microservices Architecture
Testing & Quality Assurance: JUnit 5, Mockito, Integration Testing, Testcontainers
DevOps & Containerization: Docker, Docker Compose, CI/CD, Maven, Gradle
Databases & Caching: MySQL, PostgreSQL, Redis (Caching & Rate Limiting), Database Design & Optimization
Programming Languages & Tools: Java, Python, SQL, Git, Postman, IntelliJ IDEA
Core Concepts: Data Structures & Algorithms, OOP, DBMS

Projects

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| LStats - LeetCode Analytics Platform <ul style="list-style-type: none">Architected microservices backend using Spring Boot for user management, authentication, and notificationsImplemented JWT authentication with Spring SecurityDesigned MySQL database schema with optimized indexing for users, friends, groups, and leaderboardsBuilt RESTful APIs with proper error handling and validationIntegrated WebSocket protocol for real-time chat, messaging, and notificationsTechnologies: Spring Boot, Spring Security, MySQL, FastAPI, WebSocket, Maven | 2024 |
| APILimiter - API Rate Limiting & Monitoring Platform <ul style="list-style-type: none">Developed enterprise API rate limiting platform with Spring Boot supporting token bucket and sliding window strategies using Bucket4jImplemented distributed rate limiting using Redis with atomic operations for multi-instance consistencyImplemented Spring AOP for cross-cutting concerns and custom @RateLimited annotations for declarative rate limitingDeveloped multi-tenant architecture with Spring SecurityWrote comprehensive test suite using JUnit 5, Mockito, MockMvc, and Testcontainers for integration testingDockerized application with optimized layered jar approach and Docker Compose orchestrationIntegrated Swagger/OpenAPI for API documentation and applied SOLID principles with design patternsTechnologies: Spring Boot, Spring AOP, MySQL, Redis, Docker, JUnit 5, Mockito, Testcontainers, Maven, Swagger | 2025 |