

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

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

LStats - LeetCode Analytics Platform	2024
<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	
APILimiter - API Rate Limiting & Monitoring Platform	2025
<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	