

Ayush Kumar

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EDUCATION

Indian Institute of Information Technology Sonapat

Bachelor of Technology in Computer Science and Engineering — CGPA: 7.6 2022-2026

• **Relevant Coursework:** Data Structures and Algorithms, Computer Networks, Database Management Systems, Machine Learning, Operating Systems, Software Engineering, Cloud Computing.

ACADEMIC PROJECTS

❖ Micro-Fit Application

- Built a **Fitness App** delivering **AI-driven personalized recommendations**, with a **Spring Boot** backend and a **React.js** frontend.
- **Secured the platform using KEYCLOAK**, fully synchronized with the application database for centralized user management.
- Architected on **microservices**, leveraging **Eureka** for service discovery, **Spring Cloud Config Server** for centralized configuration, and a **Reactive API Gateway** for dynamic routing.
- Enabled synchronous calls with **Netflix Feign Client** and asynchronous messaging with **RabbitMQ**, while persisting structured data in **MySQL** and unstructured data in **MongoDB**.
- **Containerized all services using Docker**, and ensured high availability and fault tolerance by integrating **Resilience4j's Circuit Breaker** pattern across all microservices.

❖ Book Carousel Web Application

- Developed a sophisticated web application enabling **users to browse books** via an engaging carousel interface, perform **book checkouts, renewals, returns**, and **submit** queries seamlessly.
- Implemented **comprehensive administrative features**, including managing book inventory (deletion, quantity updates) and responding to user queries, enhancing overall system efficiency.
- Leveraged **Spring Boot and Spring Security** to build a secure and scalable backend infrastructure.
- Employed **React.js** with **Bootstrap** for an intuitive and visually appealing front-end experience, integrated **KEYCLOAK** for robust authentication and authorization, and implemented the **Stripe** Payment Processor for reliable financial transactions.

❖ Job Recruitment Application

- Engineered a comprehensive job recruitment management system leveraging **Spring Boot and Spring Security**, empowering recruiters to post jobs and enabling candidates to submit applications seamlessly.
- Integrated robust **role-based access control and authentication** mechanisms to secure and regulate access for recruiters and candidates.
- Developed **RESTful APIs** to execute and streamline **CRUD** operations for job postings and candidate applications, ensuring efficient data exchange between the frontend and backend.

TECHNICAL SKILLS

- ❖ **Languages:** Java, Python, C/C++ , JavaScript , Typescript, SQL (MySQL) , HTML/CSS.
- ❖ **Frameworks:** Spring/Spring Boot, React, Microservices, Bootstrap, Spring AI, Kubernetes.
- ❖ **Tools:** Hibernate, Docker, Grafana(Basic), Prometheus(Basic), KEYCLOAK, WEBSOCKET.
- ❖ **Developer Tools:** Git, VS Code, IntelliJ, Postman, Kafka, RabbitMQ.

ACHIEVEMENTS / HOBBIES

- Solved **300+ problems** on [LeetCode](https://leetcode.com), enhancing **data structures and algorithms** expertise.
- Selected as one of the youngest candidates to qualify for the **NTSE**, indicating exceptional **analytical aptitude** and a commitment to **academic excellence**, providing a solid base for advanced software development.
- Completed **Spring Boot Certification** course on **Udemy**, expanding skills in backend **development and security**.
- **Enthusiastic about** tackling algorithmic challenges and **sharpening problem-solving skills** through competitive programming.