

# AYUSH RAJ | 21MI31009





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Year	Degree/Exam	Institute	CGPA/Marks
2026	M.TECH Dual Degree 5Y	IIT Kharagpur	7.47 / 10
2020	Class XII, BSEB	D.C Inter College, S.B.Pur	88.2%
2018	Class X, BSEB	+2 High School, S.B.Pur	80.4%

### **SKILLS AND EXPERTISE**

- Programming Languages: Java | Python | C | JavaScript (Basic)
   Other Languages: HTML | CSS | SQL
   Frameworks / Libraries: Spring | Spring Boot | Hibernate | Spring MVC | Data JPA | JDBC | JUnit | Java Swing
   Softwares / Tools: Core Java | OOP | Java EE | Microservices | Multithreading | MySQL | Eclipse | Lombok
- Soft Skills: Critical Thinking | Problem Solving | Work Ethic | Mentoring | Team Work | Leadership

#### **COURSEWORK INFORMATION**

- Programming: Object Oriented Programming | Programming and Data Structures (Theory and Laboratory)
- Mathematics : File Organization and Database Systems | Probability and Statistics | Linear Algebra
- Miscellaneous : Quantitative Decision Making | Economics | Basic Electronics | Basic Electronics Laboratory | Engineering Drawing and Computer Graphics | Strategic Planning | Mineral Economics and Business

#### **PROJECTS**

## Smart Contact Manager (Web Application) | Spring Boot | Self Project

[Dec '24 - Present]

- Developed user authentication features using email and password verification and integrated Google login
- Designed and implemented CRUD functionalities for contacts, leveraging Spring Data JPA to interact database
- Managed distinct Model, View, and Controller layers using Spring MVC, ensuring maintainable application.
- Enabled users to send emails directly from the platform, using the JavaMailSender interface for email delivery
- Utilized Hibernate ORM Module to map database table and columns with Spring Bean Object and members

### Spring Boot RESTful CRUD Application for Ticket Booking | Self Project

- Developed a robust RESTful web application using Spring Boot, implementing CRUD operations for ticket bookings
- Utilized Spring Data JPA to interact with a MySQL database, enabling smooth retrieval of ticket details
- Designed the application with a clean, modular architecture, including Controller, Service, and DAO layers
- Utilized Lombok to reduce boilerplate code and Hibernate ORM for mapping b/w Java objects and database tables

### ATM Interfaces and Operations | Java and MySQL | Self Project

- Developed intuitive UIs using Java's Swing framework, incorporating interactive buttons, text fields, and labels
- Implemented secure PIN-based authentication, ensuring user accounts are protected against unauthorized access
- Managed and secured user data, transactions, and accounts using robust SQL database, including MySQL

## Search and Download Images (website) | HTML, CSS and JavaScript | Self Project

- Integrated the Pexels API for image search and retrieval, managing authentication and data parsing
  Enabled keyword based image search, initiated by pressing the "Enter" key for enhanced user experience
- Implemented lightbox feature for image preview and download, showcasing the image and photographer's name

### **AWARDS AND ACHIEVEMENTS**

- Solved 650+ Data Structures and Algorithm problems on platforms like LeetCode, CodeChef, and Codeforces
- Achieved distinction in the Pre-Regional Mathematics Olympiad 2019, ranking among the top 1920 nationally
- Received the prestigious NTSE Scholarship from NCERT, Government of India, recognizing academic excellence
- Secured second place in state-level Election Knowledge Competition 2017, by the Election Commission of India
- Won second place in Ore-acle Quest at MINARE 2024, hosted by NIT Rourkela's Mining Engineering Society

# CERTIFICATIONS

# Data Structures and Algorithms with Java | Alpha | Apna College

[May '23 - Aug '23]

- Completed the Alpha (DSA with Java) course at Apna College, proficient in data structures and algorithms
- Completed a 16-week intensive DSA program, mastering topics such as linked lists, binary trees, and graphs

#### POSITIONS OF RESPONSIBILITY

## Coordinator Students' Welfare | Radhakrishnan Hall of Residence

[Aug '23 - Apr '24]

- Served on the Institute Welfare Subcommittee, advocating for 600+ boarders at Radhakrishnan Hall of Residence
- Led a team of 39 wing representatives to enhance mental illness surveillance and awareness at a micro level

### EXTRA CURRICULAR ACTIVITIES

- Proudly represented my school in prestigious quiz and essay competitions at district, state, and national levels
- Developed math problem sets for primary school students as a volunteer with the National Service Scheme