Abhinav Kumar

Patna, India

kaabhinavmmmshra@gmail.com — +91-7488856827 — LinkedIn — GitHub

Education

National Institute of Technology, Patna	2023 – 2028
B.Tech + M.Tech in Computer Science and Engineering (Cyber Security)	**CGPA: 8.0 / 10.0**
Senior Secondary (Class XII), CBSE	2021
Percentage: 90.8%	
Secondary (Class X), CBSE	2019
Percentage: 95%	

Experience

GYB Club, NIT Patna	Remote
Web Development Co-Lead	Mar 2024 – Sep 2025

- Led development of scalable **MERN stack** web applications with modular frontend and backend architecture.
- Designed secure **RESTful APIs** implementing **JWT-based authentication** and **RBAC** for role-specific access.
- Implemented backend validation, error handling, and **audit logging** to track user actions and system events.
- Developed reusable **React components** and optimized MongoDB queries to improve performance and maintainability.
- Coordinated with team members using **Git-based workflows**, reviewing code and ensuring timely feature delivery.

Projects

AI-Powered Study Platform (Web + GenAI)
MERN Stack, GenAI APIs, JWT, RBAC, MFA

- Built an AI-driven study platform enabling users to upload learning material and receive **AI-generated summaries, explanations, and practice questions**.
- Secured the platform using **JWT authentication**, **RBAC**, and **Multi-Factor Authentication (MFA)** for students and administrators.
- Designed **audit logs** to monitor uploads, AI usage, and assessments, improving transparency and reliability.
- Engineered scalable REST APIs and optimized database schemas to support concurrent users.

System Monitoring & Automation Tool (Python)
Python, Scheduling, Logging

- Developed Python automation to monitor system metrics, process logs, and generate scheduled reports.
- Implemented structured **logging and audit trails** with alerting for failures and anomalies.

Secure Smart Parking Android Application
Android, REST APIs, JWT, RBAC

- Built an Android application for real-time parking discovery and booking.
- Secured backend APIs using **JWT**, **RBAC**, and **OTP-based verification**.

Technical Skills

Languages: Java, C++, JavaScript, TypeScript, SQL
Frameworks: React, Next.js, Express.js, Tailwind CSS
Cloud & Databases: AWS, MongoDB, MySQL
Core CS: Data Structures & Algorithms, OOP, OS, DBMS

Positions of Responsibility

Web Development Co-Lead — Web & Coding Club, NIT Patna	2024 – Present

Achievements

- **Knight @ LeetCode** (1875), **Pupil @ Codeforces** (1228), **3-Star @ CodeChef**
- Selected for **Adobe Hackathon** among **200,000+ participants** (Top 0.5%).
- Solved **1,000+ DSA problems** across LeetCode, Codeforces, AtCoder, CSES, and contests.