

Saurabh Kumar

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Education

- **LNCT Group of Colleges, Bhopal** 2023 – 2027
B.Tech in Artificial Intelligence & Machine Learning **CGPA: 7.68 / 10.0**
- **Bihar School Examination Board (XII) – Higher Secondary Education** **70.0%**
- **CBSE (X) – Secondary School Examination** **60.0%**

Technical Skills

- **Languages & Core:** C++, Java (Core & Advanced), Python, SQL, JavaScript, DSA, OOPs, DBMS, OS.
- **Backend & Distributed Systems:** Spring Boot, Spring Cloud (Gateway, Eureka), Microservices, REST APIs, Apache Kafka.
- **Security & Cloud:** Keycloak, OAuth2, JWT Token Relay, Docker, Linux CLI, Git, Postman.
- **Web & Databases:** React.js, Node.js, HTML5, CSS3, Tailwind CSS, MySQL, PostgreSQL, MongoDB Atlas.
- **Machine Learning & AI:** NumPy, Pandas, Scikit-learn, Explainable AI (SHAP), Predictive Modeling.
- **Coding Profiles:** LeetCode (300+ Problems Solved) | GeeksforGeeks (100+ Problems Solved)

Key Projects

- **Healthcare Management Platform for Clinical Operations** [\[GitHub\]](#)
 - Architected a fault-tolerant **Spring Boot** microservices backend with **Spring Cloud Gateway** and **Keycloak OAuth2** for role-based access control (Doctor, Patient, Admin) with automated JWT token relay.
 - Built an event-driven vitals streaming pipeline using **Apache Kafka**; ensured zero message loss and in-order delivery using *patient-keyed partitions* and **Dead Letter Topics (DLT)**.
 - Integrated **Python ML & Explainable AI (SHAP)** for patient risk prediction, reducing dashboard inference latency by **65%** via asynchronous compute.
 - Standardized clinical patient data using **HL7 FHIR (R4)** specifications stored in **MongoDB**, and built a dynamic **React.js** analytics dashboard with live telemetry.

Tech Stack: Java, Spring Boot, Spring Cloud, Keycloak, Apache Kafka, Python (FastAPI/ML), HL7 FHIR, React.js, MongoDB.

- **Full-Stack ATM & Banking Management System** [\[Live Demo\]](#) | [\[GitHub\]](#)
 - Engineered a full-stack banking engine combining **C++17 (OOP)** core business logic with a high-performance **Node.js REST API** and **MongoDB Atlas** database.
 - Implemented secure 5-digit PIN hashing, dynamic transaction ledgers, P2P fund transfers, and automated database-to-file synchronization.
 - Designed an interactive Glassmorphism web UI with real-time balance analytics and deployed the system live on **Render**.

Tech Stack: C++17, Node.js, Express.js, MongoDB Atlas, JavaScript, HTML5/CSS3.

- **EcoTrack AI – Carbon Footprint Tracking Platform** [\[Live Demo\]](#) | [\[GitHub\]](#)
 - Developed a responsive **React.js** web app with **Tailwind CSS** and **Chart.js** to calculate, benchmark, and visualize individual carbon emission analytics.
 - Engineered a real-time carbon neutrality simulator and AI-driven sustainability engine to provide tailored lifestyle reduction plans.

Tech Stack: React.js, Tailwind CSS, JavaScript, Chart.js, Vercel.

Experience / Internship

- **Infosys Springboard Virtual Internship 7.0** June 2026 – Ongoing
Backend Developer Intern (Virtual)
 - Undergoing intensive hands-on training in enterprise Java backend development, Spring Boot, Spring Data JPA, and RESTful API design.
 - Implementing robust database schemas, automated testing with JUnit/Mockito, and building Maven-based microservices pipelines.

Certifications & Achievements

- **Oracle Certified DevOps Professional** – Oracle University [\[View Credential\]](#)
- **AICTE EduSkills Virtual Internship** – Certified in Artificial Intelligence & Machine Learning.
- **Competitive Programming:** Solved **400+ algorithmic problems** on LeetCode (300+) and GeeksforGeeks (100+).
- **Techno Cultural Fest Winner:** Awarded **1st Prize** in the Technical Innovation event at LNCT / LNUUniverse.