

Saurabh Kumar

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SUMMARY

B.Tech Computer Science student specializing in Artificial Intelligence and Machine Learning with strong foundations in Data Structures, Algorithms, and scalable full-stack development. Experienced in building AI-driven applications, developing efficient backend systems, and designing RESTful web applications.

WORK EXPERIENCE

Research Intern – HyperQUEEN-MF — SRM University-AP Jun 2025 – Jul 2025

- Developed HyperQUEEN-MF, a hybrid Quantum-AI model for hyperspectral satellite image restoration.
- Applied deep learning and quantum neural networks for feature extraction, image reconstruction, and model optimization.
- Achieved 38.12 dB PSNR, outperforming baseline models with 1.84 sec/image inference speed.

Core Team Member — Google Developer Groups (GDG) Aug 2025 – Present

- Organized 5+ technical workshops, hackathons, and AI-focused sessions for the developer community.
- Managed event logistics, promotions, and team coordination, increasing participation and engagement by 30%.

PROJECTS

Trimurti Transport – Vehicle Rental Management System [GitHub](#)

Technologies: React.js, Node.js, Express.js, MongoDB, Redis, Razorpay API, Tailwind CSS

- Developed a full-stack vehicle rental platform with real-time booking and availability tracking.
- Integrated Razorpay payment gateway supporting secure multi-method transactions with order verification.
- Generated automated PDF receipts using jsPDF, reducing manual billing effort by 80%.
- Designed RESTful APIs with JWT authentication and Redis caching for faster, conflict-free booking operations.

AI Email Classifier – Intelligent Email Management System [GitHub](#)

Technologies: Python, FastAPI, Scikit-learn, TF-IDF, React, Three.js, IMAP, NumPy

- Created an AI-powered email classifier using TF-IDF vectorization and supervised machine learning algorithms.
- Implemented a FastAPI backend with IMAP integration for live email fetching, prediction, and categorization.
- Built an interactive React dashboard with analytics features, reducing manual email sorting effort by 60%.

Skill Share Platform – Full-Stack Learning Exchange System [GitHub](#)

Technologies: HTML, CSS, JavaScript, Node.js, Express.js, MongoDB

- Created a collaborative learning platform for users to publish and explore skill-based content.
- Developed backend RESTful APIs with Node.js, Express.js, and MongoDB with secure user authentication.
- Crafted a responsive user interface that improved cross-device usability and engagement by 25%.

EDUCATION

B.Tech (CSE) at **SRM University-AP** (CGPA: 8.61/10.0) 2023 – Present

Class 12th Bihar Board — AN College, Patna, Bihar 2023

Class 10th CBSE Board — MDJ Public School, Ara, Bihar 2021

SKILLS

Data Structures & Algorithms	Arrays, Trees, Graphs, Heaps, Dynamic Programming, Greedy, Backtracking,
Languages	C, C++, Python, JavaScript, Java, PHP, SQL
Web Technologies	React.js, Node.js, Next.js, Express.js, Vite, HTML, CSS, Tailwind CSS, Bootstrap, REST APIs, JWT
Databases	MongoDB, MySQL, Firebase, Firestore, Supabase, Redis
Core CS	OOP, DBMS, Operating Systems, Computer Networks
Operating Systems	Linux/Unix, Process Management, File Systems, Shell Scripting
Machine Learning	Scikit-learn, XGBoost, Random Forest, SVM, KNN, TF-IDF
Generative AI	GANs, Diffusion Models, Prompt Engineering, Stable Diffusion, LLM Basics
Tools	Git, GitHub, Docker, Kubernetes, CI/CD, Postman, Linux, VS Code
Cloud	AWS, GCP (Basics), Azure (Basics)

CERTIFICATIONS

Oracle Certified Professional: Java SE 17 Developer [Verify](#) Feb 2026

MongoDB Associate Developer [Verify](#) Mar 2026

Artificial Intelligence — Infosys Springboard [Verify](#) Dec 2025