Jay Vardhan Sharma

vardhanworks14@gmail.com | +91 7976629995 | www.linkedin.com/in/jay-vardhan-sharma | github.com/vardhan0214

Education

Birla Institute of Technology, Mesra   Nov 2022 – May 2026
Bachelor of Technology, Computer Science Engineering
- CGPA: 7.64/10

Skills

Languages: Java, Python, SQL

Machine Learning & Data: Interpretable ML, Anomaly Detection, Feature Engineering, Scikit-learn, NumPy, Pandas, Matplotlib

Systems & CS Core: Data Structures and Algorithms, Object-Oriented Programming, Database Management Systems, Operating Systems, Cryptography and Network Security, Large-scale Transactional Data Analysis

Experience

Institute of Community Development (ICD), Jaipur   Oct 2025 – Nov 2025
Data Analytics & Financial Transparency Associate
- Designed a **lightweight, explainable financial analysis framework** using rolling statistics.
- Implemented **duplicate and redundancy detection** via fuzzy matching, uncovering reporting inconsistencies across vendor and transaction records.
- Translated analytical findings into clear, non-technical explanations to support ethical financial decision-making.

Office of the Principal Accountant General (A&E), Rajasthan   May 2025 – July 2025
AI/ML & Data Analyst Intern   Code Repository
- Designed an **interpretable anomaly-detection pipeline for large-scale government audit data**, enabling prioritization of high-risk transactions and reducing manual audit scope by **95%**.
- Engineered **40+ domain-driven compliance features** (GST/IT flags, election proximity, rolling windows), improving risk separation between normal and anomalous transactions across audit periods.
- Reduced audit scope from full-dataset review to the **top 4–5% high-risk transactions**, significantly improving audit efficiency while preserving auditor trust.
- Collaborated with senior audit officials to validate model outputs and explain risk signals for practical adoption.

Research & Publications

Moving Beyond Black Boxes with Interpretable Anomaly Detection in Government Finances   2025 (Forthcoming)

Jay Vardhan Sharma, Piyush Gupta, Netresh Khanna
IEEE 5th International Conference on ICTBIG (2025)
Interpretable anomaly detection using domain-driven features and statistical modeling, evaluated on real-world public finance audit data.

Projects

Online Educational Platform   SmartHub
- Designed a **scalable educational platform** providing free learning resources, mentorship access, and career guidance for diverse student groups.
- Developed an **AI-powered quiz and assessment system** to evaluate learner understanding and dynamically adapt content based on performance signals.
- Emphasized **system design and usability**, integrating modular backend logic with interactive UI components.

Web Portfolio   Gallery

Additional Training

Python for Data Science (IBM); Advanced Java & Data Structures — self-directed coursework

Position of Responsibility

Google Developer Student Clubs (GDSC), Java Lead   2022 – 2025
- Mentored **150+ students** in Java fundamentals, cloud computing, and structured problem-solving, facilitating a **30% increase** in student project completion rates within the community.

The Literature Club, Lead   2022 – 2025
- Facilitated structured discussions on sociotechnical themes, increasing average forum participation by 25%.