Jay Vardhan Sharma

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 ${\cal S}$ https://vardhan0214.github.io/webportfolio/ in jay-vardhan-sharma ${\bf Q}$ vardhan0214

Education

Birla Institute of Technology - Mesra

Nov 2022 - May 2026

Bachelors of Technology, Computer Science Engineering

∘ (**∠**)CGPA: 7.35

Maheshwari Public School - Jawahar Nagar, Jaipur

Class XII 2021

∘ (**∠**)Score: 95.6%

Class X 2019

∘ (**∠**)Score: 94.8%

Skills

Languages: Java, Python, JavaScript, C (basic), HTML5, CSS3, SQL

Frameworks & Libraries: LangChain, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn

Developer Tools / IDEs: Jupyter Notebook, VS Code, Git, GitHub, IntelliJ IDEA, PyCharm , MySQL

Concepts: Object-Oriented Programming (OOP), Data Structures and Algorithms (DSA), Database Management Systems (DBMS), Operating Systems, Cryptography and Network Security

Learning In Progress: LangGraph, Hugging Face, GenAI, Agentic AI, FastAPI

Experience

Office of the Principal Accountant General (A&E), Jaipur, Rajasthan

May 2025 - Present

AI/ML & Data Analyst Intern

- Developed an **ML-based fraud detection system** for government financial audit data using **Isolation** Forest and statistical analysis.
- Engineered 40+ domain-specific features, including election proximity flags, GST/IT deduction flags, rolling transaction windows, and other temporal, statistical, interaction, and cyclic features.
- Integrated **Z-score logic, duplication checks, and rolling window mechanisms** to improve fraud detection accuracy.
- Visualized anomalous spending behavior using Seaborn and Matplotlib to support audit decisions.
- Optimized fraud detection by replacing manual full-dataset scanning with an ML model that targets a 4-5% high-risk subset, boosting audit efficiency.
- Mentored by Shri Pravindra Yadav, Principal Accountant General (A&E), Jaipur.

Projects

Online Educational Platform

SmartHub **∠**

- Designed and developed an educational platform providing free, high-quality learning resources for students across rural and urban areas.
- Integrated Framer for interactive UI/UX design, ensuring dynamic and intuitive user experiences.
- Key features: mentorship access, career guidance, research opportunities, skill tracking, financial aid.
- Built a dynamic AI-powered quiz generator to assess and track student understanding in real-time.
- o Technologies: HTML, CSS, JavaScript, Python, Framer, OpenAI.

WebPortfolio Gallery Control of the Control of

- Designed and developed a clean, responsive personal portfolio using HTML, CSS, and JavaScript.
- Focused on modern UI/UX with smooth navigation and visual hierarchy to enhance user engage-

Certifications

IBM Developer Skills Network

Python 101 🗹

Completed training on Python basics, data structures, and Pandas using Jupyter Notebook for Data Science.

Smart India Hackathon — Internal Round (2023 & 2024)

College Level

 \circ Secured 5th place in 2023 and 1st place in 2024 in the internal rounds at BIT Mesra.

Java-DSA by Apna College

Apha Batch 🗹

 Completed in-depth training on Java fundamentals, data structures, and algorithms with over 150+ problemsolving exercises.

Position of Responsibility

Google Developer Student Clubs (GDSC), Senior Coordinator & Java Lead

2022 - 2025

 Organized hackathons and technical sessions for 300+ students on Cloud Study Jams, Web Development, and Web3 technologies.

The Literature Club, Lead

2022 - 2025

o Led and organized events like Mock Parliament, Table Talk, Open Mic, and more.

Technical Committee, Junior Coordinator

2022 - 2024

o Developed working demo projects and coordinated technical showcases and events.

(Performed a major role as an anchor in most of the events across all societies mentioned above.)