Shweta Mandal

Roll No.:B23CM1037
B.Tech
Artificial Intelligence and Data Science
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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.(AIDS)	Indian Institute of Technology, Jodhpur	6.89(Present)	2023-Present
Senior Secondary	CBSE Board	91.4%	2023
Secondary	CBSE Board	98.6%	2021

SUMMARY

I am a pre-final year student majoring in Artificial Intelligence and Data Science at IIT Jodhpur, with strong interests in machine learning, web development, and data-driven problem-solving. Passionate about designing and developing impactful software solutions that address real-world challenges. Committed to continuous learning and skill development, I am eager to contribute to innovative projects and explore new opportunities that foster growth and technical excellence.

PROJECTS

•Autonomous Vehicle Path Finding using LIDAR | Dr. Debasis Das *Nov. 2024*
Implemented real-time navigation using Raspberry Pi and RPLidar A1
Performed obstacle detection and avoidance in dynamic environments by implementing fuzzy logic.
Processed LIDAR point cloud data to construct 2D maps and execute real-time path planning.

•Object Recognition | Dr. Anand Mishra *Sept. 2024 - Nov. 2024*
Implemented and compared several methods including CNN, SVM, MLP, Gradient Boosting, Random Forest, KNN, and Naive Bayes for image classification on the CIFAR-10 dataset.
Applied PCA for dimensionality reduction in classical models.
Evaluated models based on accuracy and confusion matrices to analyze performance and generalization.

•Deployment Server *Dec. 2024 - May. 2025*
Designing and developing a system to automate cloud server deployment, minimizing manual SSH tasks.
Implemented Terraform for VM provisioning, Docker for container management, and GitHub Actions for CI/CD automation.
Integrated a web interface to manage VM settings, SSH keys, and container configurations.
Tools: Shell script, Node.js, GCP, Nginx, Terraform, Docker

KEY COURSES TAKEN

- Data Structure and Algorithms
- Pattern Recognition and Machine Learning
- Principles of Computer Systems
- Mathematics for Computing
- Quantum Computing
- Probability, Statistics and Stochastic Processes
- Signals and Systems

TECHNICAL SKILLS

- **Programming:** C/C++, Python, SQL, Shell script
- **Tools & OS:** Git, Google Colab, Linux, Windows, VS Code
- **Libraries/Frameworks:** Pandas, Numpy, scikit-learn, Matplotlib
- **Web Skills:** HTML, CSS, JS, ReactJS, NodeJS
- **Soft Skills:** Teamwork, Presentation Skills, Event Planning, Leadership

POSITIONS OF RESPONSIBILITY

- **Assistant Head,** Publicity and Media, Prometeo 2025, IIT Jodhpur *Dec 2025 - Jan. 2025*
- **Core Member,** Devlup Labs, IIT Jodhpur *Present*