Smriti Yadav

Contact

smreetyyadav@gmail.com
+91 8840307733
LinkedIn
GitHub

Education

B.Tech, Information Technology
Manipal University Jaipur
2022 - 2026 (CGPA: 8/10)

Class 12th, CBSE Board (90.4 %)
Lucknow Public School
2020 - 2021

Class 10th, CBSE Board (97.2 %)
Lucknow Public School
2018 - 2019

Skills

AI/ML: Python (NumPy, Pandas, Scikit-learn, Matplotlib), TensorFlow, PyTorch, Keras, NLP (Hugging Face)

Backend: Python (Django, Flask), Node.js (Express.js), RESTful APIs, Microservices

Databases: PostgreSQL, MySQL, MongoDB

Frontend: JavaScript (ES6+), React.js, Next.js, HTML5, CSS3, Tailwind CSS, npm

DevOps/Cloud: Docker, Kubernetes, AWS, Azure, CI/CD (Jenkins, GitHub Actions), Terraform, Prometheus

System Design: Microservices Architecture, Event-Driven Design, Load Balancing, Caching (Redis), Message Queues (Kafka), CDNs

Software/Tools: Unity 3D, Steam VR, Power BI, Tableau, Git, GitHub, Jupyter Notebooks, Google Colab, Linux CLI

Work Experience

R&D Intern, INMAS, DRDO, Ministry Of Defence, New Delhi *June 2024 - August 2024*

- Developed immersive VR simulation models leveraging advanced programming and 3D modeling techniques, enabling realistic virtual environments.
- Managed and processed large datasets efficiently using Python, ensuring smooth integration with VR simulations and enabling real-time adaptability.

SRTD Intern, Space Applications Centre (SAC), ISRO, Ahmedabad *July 2025 – October 2025*

- Analyzing satellite radar imagery to extract and classify meaningful patterns using geospatial features and domain-specific characteristics.
- Building a machine learning-based model for effective differentiation of SAR images, contributing to automated image interpretation workflows.

Projects

Context-Aware Q&A with RAG Architecture **Live Demo | GitHub**

- Developed a full-stack AI application using the **RAG architecture** to provide fact-based, verifiable answers from user documents, eliminating LLM hallucinations.
- Engineered a **Python backend with FastAPI and LangChain**, integrating **Pinecone**, **Google Gemini**, and **Cohere** for result reranking.
- Deployed the full **React (Vite) frontend** and backend to the cloud using **Vercel** and **Render**, establishing a complete CI/CD pipeline.

Wildlife Conservation using AI *April 2025 - Ongoing*

- Developing an AI-based system for **bird species classification and migration pattern analysis** using the **BIRDS 525 and eBird datasets**.
- Implementing **CNNs and Transformers** to identify bird species and track spatiotemporal migration trends for conservation insights.
- Integrating data visualization and analytics to assess biodiversity impact and support **SDG Goal 15 (Life on Land)**.

Full-Stack Pharmaceutical Website **GitHub**

- Developed a visually rich and responsive Ayurvedic pharmaceutical website using **React.js (Vite), Tailwind CSS, and GSAP**.
- Built modular sections for Home, About, Products, and Contact, incorporating smooth UI interactions and mobile-first design.