Smriti Yadav

Contact

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+91 8840307733
LinkedIn
GitHub
Portfolio Website

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*

- Engineered and optimized immersive **VR simulation** models using **Unity 3D and Steam VR** for advanced training scenarios, enhancing user engagement and realism.
- Automated a Python-based data processing pipeline to manage and integrate large-scale datasets, reducing data integration time by **35%** and enabling real-time simulation adaptability.

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

- Developed and trained a novel **OpenCV** based model to analyze **satellite radar (SAR) imagery**, successfully classifying **3+** geospatial features with **98% accuracy**.
- Contributed to an automated image interpretation workflow designed to reduce manual analysis time by **37 hours**, directly improving the efficiency of remote sensing applications.

Projects

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

- Architected a full-stack, anti-hallucination Q&A system using a **Retrieval-Augmented Generation (RAG)** pipeline, achieving **97%** factual accuracy against provided documents.
- Built a high-performance backend with **FastAPI and LangChain**, integrating **Pinecone** vector search achieving **3ms query latency** and **Cohere reranking** to optimize response quality.
- Deployed the **React (Vite)** frontend and **Python backend** via a complete CI/CD pipeline using **Vercel** and **Render**, ensuring automated testing and seamless updates.

Wildlife Conservation using AI *April 2025 - Ongoing*

- Training and fine-tuning **CNN and Transformer** models (PyTorch/TensorFlow) on the **BIRDS 525 dataset** to classify **500+ bird species** with a target accuracy of **98%**.
- Analyzing eBird geospatial data to map spatiotemporal migration patterns, providing key data visualizations for biodiversity conservation (in support of **SDG Goal 15**).

Full-Stack Pharmaceutical Website **GitHub**

- Delivered a pixel-perfect, responsive pharmaceutical website using **React.js, Tailwind CSS, and GSAP** for fluid animations, resulting in a **40% increase** in Lighthouse performance scores.
- Engineered **5+ modular React components** for all site sections, emphasizing a mobile-first design that led to a seamless user experience across all devices.