

SUMIT JADHAV

Chhatrapati Sambhajanagar, India | +91 9730919431 | jadhavsumit534@gmail.com |
github.com/sumitjadhav1703 | linkedin.com/in/sumit-jadhav-1703s | kaggle.com/sumit1703

EDUCATION

M.G.M's Jawaharlal Nehru College of Engineering, MGM University | B.Tech, AI & Data Science | 2024 – 2027 (Expected)

- Relevant Coursework: Machine Learning, Deep Learning, Neural Network Architectures, Soft Computing, Computer Vision, NLP.

M.G.M Polytechnic | Diploma in Computer Engineering | 2021 – 2024 | First Class with Distinction (71.65%)

TECHNICAL SKILLS

- Languages & Data: Python, C++, Java, SQL, JavaScript, HTML/CSS, Pandas, NumPy
- ML & Deep Learning: PyTorch, TensorFlow, Scikit-learn, OpenCV, LangChain, LangGraph, Hugging Face
- Generative AI & MLOps: RAG Architectures, Multi-Agent Systems, Mistral AI, Groq, pgvector, FastAPI, Docker, Streamlit, Git

PROJECTS

AI Video Assistant — Multi-Modal RAG Pipeline | Python, FastAPI, LangChain, Groq, Neon pgvector, Streamlit, Docker

- Architected a microservices RAG pipeline combining Groq Whisper and Sarvam AI models for multilingual English/Hinglish audio transcription, summarization, and conversational Q&A. [METRIC NEEDED]
- Streamed audio in ephemeral chunks to bypass 25MB API payload limits; isolated session vector embeddings in Neon PostgreSQL with pgvector to prevent context leakage. [METRIC NEEDED]

Multi-Agent Research System | Python, LangChain, Mistral AI, Tavily Search, BeautifulSoup, Streamlit

- Engineered a four-agent pipeline (Search, Reader, Writer, Critic) that autonomously scrapes and synthesizes web sources into structured technical reports. [METRIC NEEDED]
- Integrated Tavily semantic search and BeautifulSoup scraping with Mistral AI; built an autonomous Critic agent evaluating draft quality against a 10-point rubric. [METRIC NEEDED]

NYC Airbnb Room Type Classification | Python, Scikit-learn, FastAPI, Pandas, Jupyter, Vercel

- Developed and deployed a full-stack machine learning web application using Scikit-learn and FastAPI to classify Airbnb listing categories, serving inference models on Vercel. [METRIC NEEDED]

PM2.5 Pollution Forecasting — Hybrid Deep Learning | ConvLSTM, Fourier Neural Operator (FNO), UNet, Gradio, Hugging Face

- Designed a spatio-temporal neural network combining stacked ConvLSTM encoders, spatial FNO, and UNet decoders with SE blocks to forecast PM2.5 grid pollution across Northern India.
- Processed 20 atmospheric features over a 10-hour window across a 140×124 grid, training on 4 months of WRF simulation data using Kaggle T4 GPUs (~8 hours execution time).

SAR Crop Mapping — ANRF AISEHack 2.0 (Kaggle) | PyTorch, Sentinel-1 SAR Data, UNet, Computer Vision

- Secured Rank 10 out of 132 competing teams in the ANRF AISEHack 2.0 Round 1 SAR Crop Mapping Challenge.
- Developed PyTorch deep learning segmentation models trained on Sentinel-1 Synthetic Aperture Radar (SAR) imagery with custom augmentation pipelines.

WORK EXPERIENCE

Kalavati Technologies | Web Development Intern | Jun 2023 – Jul 2023

- Developed responsive web interface components using HTML5, CSS3, and JavaScript across client projects.
- Collaborated with engineering team via Git for structured code reviews and version control.

CERTIFICATIONS & ACHIEVEMENTS

- Rank 10 / 132 Teams: ANRF AISEHack 2.0 Round 1: SAR Crop Mapping Challenge (Kaggle)
- DeepLearning.AI (Coursera): Structuring ML Projects & Improving Deep Neural Networks
- Bootcamp & Courses: NIELIT 5-Day Cyber Security Bootcamp | Kaggle ML & Data Science Certifications