Vishal Vilas Gorule

gorulevishal984@gmail.com | 9172838972 | Mumbai
https://github.com/VisionExpo | https://www.linkedin.com/in/vishal-gorule/

Summary

Result-driven **Artificial Intelligence and Data Science** graduate with hands-on experience in architecting and deploying end-to-end machine learning solutions. Proven ability to develop models for **NLP, computer vision and fault detection**, with expertise in **Python, TensorFlow and Generative AI**. Eager to apply skills in building scalable, real-time AI Applications.

Skills

Languages	: Python
Database	: MySQL, AstraDB
ML & DL Frameworks	: Scikit-learn, TensorFlow, Keras, PyTorch, SciPy
Specializations	: Natural Language Processing (Transformers), Computer Vision (OpenCV, YOLO), Generative AI (OpenAI, Gemini Pro, Llama), MLOps (DVC, MLflow)
Tools & Platforms	: Docker, FastAPI, Flask, Git/GitHub, Render, AWS

Work Experience

Solar Secure Solutions, Remote May 2024 – Aug 2024
AI and ML Intern
- Architected a multi-model Q&A system using Google's Gemini Pro API handle queries from text, images, documents and URLs.
- Integrated AstraDB with Sentence Transformers, enabling high-performance sematic search capabilities using vector embedding's.
- Monitored and debugged LLM performance with LangSmith, improving model reliability and prompt analytics.
- Designed a responsive Flask web interface and deployed the scalable, containerized applications using Docker and Render

RacksonIT Developers Pvt Ltd, Pune Jan 2024 – May 2024
Data Science and Artificial Intelligence Intern
- Contributed to the development and deployment of an AI model for **solar panel fault analysis**, improving detection efficiency.
- Collaborated in building automated systems using Python, OpenCV and various machine learning frameworks.

Qsective Solution, Ichalkaranji 2021 - 2022
Python and Machine Learning Trainee
- Engineered and validated machine learning models for **regression and clustering tasks**, improving predictive accuracy.
- Executed data preprocessing, feature engineering and wrote automation scripts using Python.

Education

SIT, Yadrav Aug 2020 - Jun 2024
B.Tech in Artificial Intelligence and Data Science CGPA: 7.06/10

Project Work

End-to-End MLOps Platform for Stock Forecasting: [GitHub Repo]
- Architected and deployed a full-stack, containerized **MLOps platform** using Docker, FastAPI and Streamlit.
- Engineered a multi-model data pipeline fusing **15+ years** of market data with **FinBERT-derived news sentiment**.
- Developed and tuned a **Transformer model**, achieving a final **R-squared of 0.823**.
- Implemented a complete MLOps workflow with **DVC** for versioning and **MLflow** for experiment tracking.
- Deployed the model to an interactive dashboard with a **Backtesting Engine** and **Data Drift Monitoring**.

Solar Panel Fault Detection System: [GitHub Repo] | [Live Demo]
- Engineered a computer vision system by fine-tuning an **EfficientNetB3 model** on a dataset of **~3000 images** to classify **6 types** of solar panel faults, achieving **~85% accuracy** and an **F1-score of ~0.83.**
- Architected a full-stack solution featuring a **FastAPI REST API** capable of **~150ms** inference per image and an interactive Gradio web interface for real-time user interaction.

AI-Based Poultry Disease Detection System: [GitHub Repo]
- Engineered a poultry disease detection system using **VGG16 with transfer learning**, achieving **~95% classification accuracy**.
- Enabled rapid, real-time diagnosis via a **Flask REST API** and deployed on **Render** and **AWS**.

Publications

The Hospital Management System, IRJMETS, Dec 2024 URL**: https://www.doi.org/10.56726/IRJMETS47223**

Awards and Certificates

- Data Science with Python – Simplilearn
- Natural Language Processing with Classification and Vector Spaces – Coursera