Vivek Sharma

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Education

MCC, University of Mumbai — Mumbai, India
BSc in Information Technology:- CGPA - 7.37 — *2022 – 2025*

GVM College — Mumbai, India
High School (HSC Science):- 65% — *2020 – 2022*

Projects

ArtCycle | *Python, Tensorflow, Numpy, Matplotlib, Shell* **[Project Link]**

- Developed a CycleGAN-based unsupervised deep learning model to perform artistic style transfer between photos and paintings.
- Created an interactive web application using Streamlit for real-time image conversion, integrating pretrained TensorFlow models.
- Deployed the app on Streamlit Cloud for public access and testing.
- Implemented efficient training pipelines in TensorFlow with optimized loss functions (cycle loss, identity loss) and automated dataset handling using the Kaggle API.

Student Performance Analysis and Prediction | *Python, Scikit-learn, XGBoost, Streamlit* **[Project Link]**

- Built a Streamlit web app to analyze and predict student academic performance using ML models.
- Implemented role-based access for professors and students with interactive performance dashboards.
- Used pre-trained models to predict SGPA, percentage, and marks; stored data securely with MongoDB.
- Enabled automated report generation and semester-wise performance trend analysis.

Brain Tumor Classification App | *Python, TensorFlow, Streamlit, CNN, PIL* **[Project Link]**

- Developed a Streamlit web app to classify brain tumors from MRI images using a pre-trained CNN model.
- Implemented grayscale image preprocessing, prediction probability display, and support for four tumor classes.
- Built and trained a CNN with TensorFlow using data augmentation and validation pipelines.
- Enabled real-time predictions and deployed the model on Hugging Face Spaces for public access.

Experience

Techathon — February 2025
Mulund College of Commerce — *Mumbai, India*

- Built and trained machine learning models to predict equipment failures using sensor data and historical maintenance records.
- Performed data preprocessing and feature engineering to improve prediction accuracy.
- Optimized model performance through hyperparameter tuning and evaluation metrics like precision and recall.
- Integrated machine learning models into backend (Flask/FastAPI) for real-time predictive maintenance.

Open Source Contribution

Universal-Box — 2024
Contributor (Data Science Template)

* Developed and added a Data Science template to Universal-Box to streamline data science project setup.
* Created an easy-to-use starter template including configurations for common data science tools (e.g., Jupyter, pandas, scikit-learn).
* Integrated sample workflows and notebook structures into the template for quick project initialization.
* Collaborated with other developers to ensure the template aligns with best practices for data science projects.

Technical Skills

Languages: Python, SQL
Frameworks: TensorFlow, Flask, FastAPI
Developer Tools: Linux, Git, Github, VS Code, Jupyter lab, PyCharm
Libraries: Scikit-learn, pandas, NumPy, Matplotlib, Seaborn, Plotly