Vansh Bansal

github.com/vanshbansal986

Education

Vellore Institute Of Technology, Vellore

Expected May 2025

Bachelor of Technology in Information Technology(IT) (CGPA: 8.4)

Vellore.Tamil Nadu

Relevant Coursework: Operating Systmes, Prob & Stats in CS (Python), OOPS, Database Systems.

Experience

CollabJn

June 2024

Data Analyst

Vellore, Tamil Nadu

- Implemented comprehensive data scraping and analysis to identify and categorize potential leads from over 200 educational institutions, increasing lead generation accuracy by 50% and reducing processing time by 500%.
- Analyzed response patterns and engagement metrics, leading to a 40% improvement in predicting high-potential leads, which contributed to a 30% growth in successful event organization and client acquisitions.

Projects

Network Security Data - End-to-End ML Project | MongoDB, MLFlow, Dagshub, FastAPI, Docker, Python

Link

- Designed and implemented an end-to-end machine learning project, covering all stages including data ingestion, data transformation, model development, and evaluation, to optimize workflow efficiency and scalability.
- Utilized MLFlow for comprehensive model tracking and Dagshub for version control, enabling detailed evaluation, comparison, and efficient experimentation throughout the ML lifecycle.
- Developed a real-time prediction system with a FastAPI web interface, integrating the model and data pipeline seamlessly, while leveraging **Docker** for containerized deployment.

Social Media Analytics for Influencer Insights | Python, Pandas, DeepFace, Flask

Link

- Built a system to identify influencers driving the most engagement by extracting unique faces from videos and calculating their average performance scores based on engagement metrics.
- Created a 3-stage pipeline for data cleaning, face analysis, and score aggregation, ensuring scalability and seamless updates with new data.
- Utilized DeepFace for image processing and crafted scripts for handling diverse datasets, ensuring high-quality face extraction and robust transformation for actionable insights.

Comprehensive Credit Score Analysis and Predictive Modeling | Sklearn, Pandas, Numpy, Matplotlib

Link

- Executed an in-depth analysis of a large credit score dataset, containing over 100k rows and 25+ columns, uncovering critical insights into customer credit behavior through advanced data exploration techniques.
- Performed data cleaning and created visualizations and statistical reports to analyze distributions, correlations, and trends for feature selection and model optimization.
- Formulated and fine-tuned predictive models, leveraging dimensionality reduction techniques to enhance model accuracy and efficiency, achieving a 76% accuracy in credit score predictions.

Energy Price Prediction Using ML | Sklearn, Pandas, Numpy, Matplotlib, Seaborn

Link

- Developed a machine learning model to forecast next-day energy prices using historical data, achieving a prediction accuracy improvement of 45% through the implementation of various ML algorithms.
- Engineered a comprehensive data pipeline for preprocessing, feature engineering, and model evaluation, resulting in improved prediction accuracy by 15%.
- Utilized advanced techniques such as PCA for feature selection and GridSearchCV for hyperparameter tuning, optimizing model performance across multiple evaluation metrics.

Technical Skills

Languages: C, C++, Python, HTML, SQL

Technologies: NumPy, Pandas, Matplotlib, BeautifulSoup, Selenium, Tableau, SKlearn, Git, LangChain

Concepts: Data Structures and Algorithms, Data Analysis, Machine Learning, GenAl, LLMs, OpenAl, HuggingFace

Certifications: Data Structures and Algorithms by Coding Ninjas