Venkata Manideep Patibandla

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PROFESSIONAL SUMMARY

Master's in Computer Science with 1+ year building production ML systems and scalable data pipelines, specializing in Python, SQL, and AWS. Expert in developing and deploying ML models with Flask, implementing CI/CD workflows, and creating Tableau dashboards that deliver actionable insights. Proven track record solving real-world problems through data-driven solutions with strong analytical skills and a passion for innovative technology.

SKILLS

- **Technical:** Python (Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch), SQL, NLP (Text Classification, Information Extraction), Transformer Models (BERT, GPT), Machine Learning, Statistical Analysis, Exploratory Data Analysis, Feature Engineering, Model Evaluation
- **Tools & Software:** Apache Airflow, Databricks, AWS (EC2, S3, Lambda, SageMaker), Docker, Flask, FastAPI, Streamlit, Tableau, Power BI, Git, CI/CD Pipelines, MLOps, MLflow, DVC, Airflow

WORK EXPERIENCE

Infosoft Solutions, Windsor, New Jersey   August 2025 - Present
Data Analyst

- Designed and optimized SQL-based data warehouse architectures processing 10k+ records/day, improving query performance by 45% through efficient schema design and data modeling.
- Applied Python (Pandas, NumPy, SciPy) and statistical analysis to large datasets (5K+ records), enabling predictive and diagnostic analytics with 92% model accuracy.
- Developed Tableau dashboards and analytical reports across 8+ business units, delivering actionable insights to stakeholders through interactive visualizations.

Ion Technology Solutions, Vijayawada, India   November 2022 - February 2023
Data Analyst Intern

- Designed SQL-based data pipelines using Python (Pandas, NumPy), processing 50K+ records; performed data preparation, fulfilling the project with transformation, cleaning, and validation techniques, ensuring data quality.
- Conducted data mining and exploratory data analysis using statistical packages; analyzed datasets, paying attention to trends and patterns, extracting insights supporting business recommendations and diagnostic analytics efforts.

PROJECTS

Astro Sales Forecasting Pipeline *(Python, Pandas, NumPy, XGBoost, LightGBM, scikit-learn, Streamlit)* | [*Link*]
- Designed an end-to-end ML system for sales forecasting with clearly separated components for data ingestion, feature engineering, model training, evaluation, and real-time inference.
- Implemented and compared statistical baselines (moving average, ARIMA) against tree-based models, selecting approaches based on error stability across rolling time windows, not single-run accuracy.
- Built a Streamlit-based inference and visualization layer to expose predictions and diagnostics, enabling rapid scenario testing and reducing reliance on offline analysis.

Student Exam Performance Prediction *(Python, scikit-learn, Pandas, NumPy, YAML-based configs)* | [*Link*]
- Implemented a config-driven MLOps pipeline covering data ingestion, validation, preprocessing, model training, evaluation, and inference.
- Enforced schema and data validation checks to prevent invalid inputs and distribution mismatches from propagating through the pipeline.
- Designed modular components to enable safe model iteration, allowing models to be retrained or replaced without changing downstream interfaces.
- Emphasized reproducibility and experiment consistency by decoupling data logic, feature logic, and modeling logic.

EDUCATION

Sacred Heart University, Fairfield, CT   March 2025
Master of Science in Computer Science and Information Technology   GPA 3.8

GMR Institute of Technology, Vizianagaram, India   May 2023
Bachelor of Information Technology   GPA 3.6

AWARDS & PUBLICATIONS

Upsilon Pi Epsilon (UPE) Honor Society — Recognized for academic excellence, discipline, and outstanding performance in Computer Science.

A Study on Deep Learning Approaches for Mood-Based Music Recommendation Systems [*Link*]
Designed and evaluated deep learning models for emotion-aware music recommendation, applying CNN-based architectures, feature extraction, and performance benchmarking.