D.P Sai Manohar

Doddaballapura - 561203 | manohardp01@gmail.com | 9663536682 | linkedin.com/in/sai-manohar23

github.com/Sai-manohar695

Summary

Data Scientist with hands-on experience building end-to-end ML pipelines on real-world datasets — from EDA and feature engineering to model deployment, monitoring and CI/CD automation. M.E. in AI/ML and Data Science Intern at **Ericsson Global** specializing in LLM Optimization and High-Scale Predictive Modeling. Placed **5th globally** in the **2025 LWM Challenge**. Proficient in Python, XGBoost, PyTorch, Prophet and MLflow, with a focus on predictive modeling, statistical analysis, and production-ready ML systems.

Work Experience

Data Science Intern
Ericsson Global **June 2025 – Present**

- Architected a **12-layer Transformer encoder** using **SSL** and **Masked Channel Modeling (MCM)** to generate universal channel embeddings for **6G networks**; implemented **TimeLLM** to reprogram frozen **Llama-7B** for wireless time-series forecasting, achieving **37% reduction in MSE** via **Prompt-as-Prefix (PaP)** engineering.
- Optimized task-specific heads for simultaneous **beam management** and **high-precision user tracking** — secured **5th place globally** in the **2025 LWM Challenge** (Large Wireless Model for 6G Spatial Intelligence).

Education

Manipal School of Information Sciences, M.E. in Artificial Intelligence and Machine Learning **July 2024 – Present**

- **GPA: 8.04 / 10.0** *Coursework: Machine Learning, Deep Learning, Statistical Learning, NLP, Computer Vision*

S.J.C Institute of Technology, B.E. in Information Science and Engineering **Jan 2020 – Mar 2024**

- **GPA: 7.65 / 10.0**

Projects

Real-Time Financial Fraud Detection System with MLOps & Drift Monitoring
Python · XGBoost · MLflow · FastAPI · Docker · Evidently AI

- Engineered **6 features** on IEEE-CIS dataset (**590K transactions**, **27.6:1 imbalance**) including a **has_identity** flag revealing **3.8x higher fraud rate** and log-transformed amount reducing skewness by **96.6%**.
- Selected **XGBoost** across 4 models via **8 MLflow experiments** - threshold tuning (**0.83**) achieved **F1: 0.6618**, **ROC-AUC: 0.9485** (+55% F1) - deployed via **FastAPI**, **Evidently AI** drift monitoring and **GitHub Actions** CI/CD.

Multi-Model Demand Forecasting Engine for Retail Supply Chain Optimization
Python · Prophet · XGBoost · PyTorch LSTM · Streamlit

- Built forecasting engine on M5 Walmart dataset (**58.3M records**, **30,490 SKUs**) - engineered **41 features** and resolved **68.2% zero-sales sparsity** by aggregating to **30 store-category series**.
- Compared **Prophet**, **LSTM** and **XGBoost** on **28-day horizon** - Prophet best **RMSE: 218** (MAPE **6.33%**), XGBoost best **MAPE: 5.88%** - deployed as **Streamlit** dashboard.

End-to-End Sales Forecasting Pipeline with GCP BigQuery, SQL & Looker Studio
Python · XGBoost · Google BigQuery · SQL · Looker Studio · GitHub Actions

- Queried **124,903 orders** from **GCP BigQuery** using **SQL joins across 4 tables** and engineered **22 time-series features** including lag, rolling averages and YoY growth across **7 years** of e-commerce data.
- Trained **XGBoost** achieving **MAPE of 9.25%** - **rolling_mean_6 dominant at 45.7% importance** - automated pipeline (BigQuery → features → forecasts → write-back) deployed as **Looker Studio** dashboard with live category KPIs.

Skills

Machine Learning: XGBoost · LightGBM · Random Forest · Logistic Regression · Scikit-learn · SMOTE

Deep Learning & Forecasting: PyTorch · LSTM · Transformers · Prophet · Sequence Modeling

Data Analysis & Visualization: SHAP · EDA · Statistical Modeling · Pandas · NumPy · SciPy · Matplotlib · Seaborn · Plotly · Tableau

MLOps & Deployment: MLflow · FastAPI · Docker · GitHub Actions · Streamlit · CI/CD · Evidently AI

Cloud & Data Engineering: Google BigQuery · GCP · SQL · Looker Studio · Data Pipelines · ETL · Cloud Storage

Languages & Tools: Python (Primary) · SQL · R · Java · Git · Jupyter · Anaconda · Tableau

Certifications

- Deep Learning Specialization — DeepLearning.AI
- Fundamentals of AI Agents Using RAG and LangChain — IBM