M B GIRISH

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Profile Summary

Data Scientist and Machine Learning Engineer with hands on experience building end to end, production grade machine learning systems. Skilled in statistical modeling, anomaly detection, causal inference, and machine learning monitoring with drift detection. Strong background in translating business problems into scalable, data driven solutions.

Education

Dayananda Sagar College of Engineering, Bengaluru 2023 – 2027
Bachelor of Engineering in Computer Science and Engineering CGPA: 8.93

Masters PU College, Karnataka 2020 – 2022
PCMB (KSEEB Board) Score: 97.16%

Technical Skills

Programming: Python, SQL (MySQL, PostgreSQL), Java
Machine Learning and AI: Supervised and Unsupervised Learning, Anomaly Detection, Causal Inference, Time Series Forecasting, Natural Language Processing, Model Monitoring and Drift Detection, Explainable AI
Frameworks and Libraries: Scikit learn, TensorFlow, PyTorch, Pandas, NumPy, Matplotlib, FastAPI, Streamlit
Databases and Vector Stores: MongoDB, Firebase, FAISS, ChromaDB
Data Visualization and BI: Power BI, Tableau, Excel
Developer Tools: Git, GitHub, VS Code, Postman, Jupyter Notebook

Projects

ML Model Monitoring and Drift Detection *(Python, Machine Learning Monitoring, Statistical Tests, Data Drift, Concept Drift, Explainable AI)* GitHub

- Built a **production grade** machine learning monitoring framework to detect data drift and concept drift using statistical tests and performance tracking.
- Implemented **automated alerts and retraining triggers** to maintain model accuracy under changing data distributions.
- Designed scalable pipelines to monitor **feature distributions, prediction stability, and model degradation** over time.

Real Time Transaction Anomaly Detection System *(Python, Anomaly Detection, Imbalanced Learning, Supervised and Unsupervised Machine Learning)* GitHub

- Developed a **real time anomaly detection system** for financial transactions using supervised and unsupervised machine learning models.
- Addressed **highly imbalanced datasets** using sampling strategies, threshold optimization, and robust evaluation metrics.
- Engineered feature pipelines to **reduce false positives** in streaming data.

Causal Impact and Uplift Modeling for Marketing Campaign Optimization *(Python, Causal Inference, Uplift Modeling, Propensity Score Modeling, Gradient Boosting, Qini Analysis)* GitHub

- Estimated **average and individual treatment effects** using propensity score stratification and inverse propensity weighting.
- Built uplift models to identify **customers most likely to respond positively** to marketing campaigns.
- Evaluated treatment effectiveness using **causal impact analysis** to support data driven decision making.

Retail Sales Time Series Forecasting System *(Python, Time Series Forecasting, ARIMA, SARIMA, Prophet, Walk Forward Validation)* GitHub

- Built an **end to end time series forecasting system** to predict retail sales under seasonality and trend patterns.
- Implemented and compared **ARIMA, SARIMA, and Prophet models** using walk forward validation.
- Delivered accurate demand forecasts to support **inventory planning and business strategy**.

Certifications and Achievements

Machine Learning Specialization — Stanford University and DeepLearning.AI Certificate
Python for Data Science, AI, and Development — IBM Certificate
Amazon ML Summer Challenge: Secured Rank 4380 among more than 80,000 participants nationwide, demonstrating strong problem solving, quantitative reasoning, and time management skills.
NMITE SparkLab Designathon 2025: Ranked Top 10 among 500 participants and earned special recognition for innovation in Artificial Intelligence and Machine Learning at Nitte Meenakshi Institute of Technology.