Jayashree Ramesh Reddy

Memphis, United States | jayashreeramesh2409@gmail.com | +1(901)608-5966 | LinkedIn | Portfolio | GitHub

EDUCATION

Master of Science in Data Science   **Expected Dec 2025**
University of Memphis | GPA: 3.46
[Coursework: Machine Learning, Data Mining, Fundamentals of Data Science, Advanced Statistical Learning, Database Systems, Data Visualization]

Bachelor of Engineering in Information Science & Engineering   **July 2023**
Don Bosco Institute of Technology | GPA: 3.4
[Coursework: Probability & Statistics, Linear Algebra, Database Management Systems, Data Warehousing, Artificial Intelligence, Neural Networks, Big Data Analytics]

EXPERIENCE

Data Science Intern | Wedir Technology | India   **Aug 2023 – Dec 2023**
• Engineered **end-to-end ML pipelines** (Random Forest, XGBoost) with **89% model accuracy**, enabling risk-optimized financial decisions.
• Automated **data preprocessing & feature engineering** in Python (Pandas, NumPy, Scikit-learn), cutting prep time by **30%**.
• Built **ETL and visualization workflows** (Airflow, Tableau), improving report latency by **20%** and enabling real-time KPI insights.
• Applied **statistical inference** and **model validation** for credit scoring and anomaly detection use cases..

Data and Automation Intern | JOHNSON CONTROLS | India   **Jan2023 – July 2023**
• Designed **Power BI dashboards** to monitor manufacturing KPIs, improving system uptime by **30%**.
• Implemented **statistical analysis and forecasting** on HR data, driving **90% reduction** in manual effort.
• Automated **data extraction and transformation pipelines** with Power Automate, SharePoint, and SQL.
• Collaborated with cross-functional teams to **analyze operational data** and present findings to management.

PROJECT

Spotify Song Hit Predictor | GitHub
• Developed an **end-to-end predictive modeling pipeline** using Python, scikit-learn, and XGBoost for hit-song classification.
• Applied **data aggregation, feature engineering, and model evaluation** (F1, ROC-AUC, Accuracy) for comparative benchmarking.
• Deployed interactive **Streamlit dashboard on Snowflake**, ensuring **99% uptime** and **scalable cloud-based analytics**.

Intelligent Fraud Ring Identification using GNN| GitHub
• Constructed **graph-based ML models** (PyTorch Geometric, DGL) for fraud ring detection on transactional networks.
• Used **SMOTE, weighted losses**, and **Graph Neural Networks** to boost minority-class recall by **20%**.
• Delivered **visual dashboards** to expose hidden fraud clusters, reducing manual investigation time by **35%**.

Customer Journey Intelligence Platform| GitHub
• Built **ETL pipelines with SQL + Python** integrating customer lifecycle data into Snowflake for churn analytics.
• Applied **Machine Learning (XGBoost + SHAP)** to predict churn and identify key behavioral drivers.
• Designed **Power BI dashboards** and **causal inference** modules (DoWhy, EconML) for retention strategy optimization.

InsightBridge Analytics Assistant | GitHub
• Built an **AI-powered BI assistant** that converts **natural language queries into SQL** using **LangChain, FAISS, and sentence-transformers** for contextual accuracy.
• Designed **RAG pipelines** integrating **pgvector and PostgreSQL**, enabling semantic retrieval and automated KPI explanations.
• Developed **FastAPI + Streamlit app** with intelligent caching and filtering, reducing ad-hoc analysis time by **50%**.
• Evaluated query response quality using **RAGAS and cosine similarity**, improving **retrieval precision by 20%**.

SKILLS

• **Programming & Databases:** Python, R, SQL, PL/SQL, MySQL, PostgreSQL, Pandas, NumPy, Scikit-learn
• **Machine Learning & AI:** Regression, Classification, Neural Networks, TensorFlow, PyTorch, Statistical Inference, Algorithms, Anomaly Detection, Time-Series Forecasting
• **Big Data & Cloud:** Apache Spark, Snowflake, AWS (S3, Lambda, SageMaker), Data Pipelines, Airflow
• **Visualization & BI:** Power BI, Tableau, Matplotlib, Seaborn, Excel (Pivot Tables, VLOOKUP)
• **Libraries & Tools:** Numpy, Scipy, Matplotlib, Scikit-learn, TensorFlow, PyTorch, Spark
• **Soft Skills:** Analytical Thinking, Problem-Solving, Team Collaboration, Communication, Time Management
• **Certifications:** Data Scientist in Python (DataCamp), Machine Learning Scientist (DataCamp), SQL for Data Science, Power BI & Tableau Visualization