Ashritha Gugire

Fairfax,VA | gugireashritha@gmail.com | +1 949 204 6952 | LinkedIn | Github

Education

George Mason University, MS in Data Analytics | **GPA: 3.87/4.0**   Jan 2023 - Dec 2024
- **Coursework:**Data Analysis and Analysis of Algorithms, Machine Learning, NLP, Operational Research.

Vignana Bharathi Institute of Technology, B.Tech in Computer Science   April 2017 - May 2021
- **Coursework:**Data Structures, Operating Systems, Cloud Computing, Computer Architecture, Advanced Analytics.

Experience

Research Data Analyst, George Mason University - Arlington, VA   Jan 2024 - present
- ***Developed an Anomaly Detection system***.Analyzed the movements of 500,000 simulated agents to identify tourist behavior.Achieved high precision and recall metrics when testing the system on a subset of 100,000 agents.
- Conducted behavioral pattern analysis to identify anomalies in human trajectories, revealing insights such as frequent clustering of tourists at specific locations(Ex: Religious locations on Fridays).
- Applied machine learning models such as the isolation forest and random forest to analyze trends and patterns.
- By optimizing hyperparameters and adjusting decision thresholds, successfully reduced false positives by 40%,
- Developed interactive visualizations and reports, enabling stakeholders to identify anomalies with minimal ambiguity.

Data Analyst,Infosys Pvt. Ltd - India   June 2021 - Dec 2022
- Streamlined data collection processes and improved data-driven decision making by delivering advanced data visualization insights, increasing efficiency by 25%.
- Analyzed business workflows to identify areas for process optimization and presented actionable recommendations
- Created clear and interactive dashboards for non-technical stakeholders using Tableau and Python.
- Performed feature analysis and model evaluation to support data-driven strategies.
- Established and maintained production analytics solutions, reducing the troubleshooting time by 50%.
- **Key Focus Areas** : Principal Component Analysis, Feature Analysis, Model Evaluation, Handling Class Imbalance
- **Technologies and Tools Used** : Python, Scikit-learn, NumPy, SMOTE, Excel, Plotly, Jupyter

Projects

GMU Climate Dashboard   Aug 2024 - Dec 2024
- Developed a climate insights dashboard by integrating 30 years of NOAA data into a centralized platform, highlighting key trends to support municipal water resource planning (2.53 ° F warming, 7.94 inches increase in precipitation in 2024), and validated results with p-values (***Hosting on GMU Virginia Climate Center***)

Skin Cancer Diagnosis   Jan 2024 - March 2024
- The purpose of this Deep Learning Classification problem was to classify various skin lesions on the body along with images and lesion IDs. Implemented a pre-trained ResNetX101 model and achieved 80% model accuracy with PyTorch

E- Commerce Analytics - Big Data Project   Aug 2023 - Dec 2023
- Analyzed fashion product data with 200M records to identify customer trends and improve product recommendations.***Optimized SQL queries***, to reduce data latency by 25%, enhancing real-time analytics capabilities.

Skills and Technologies

Programming : Python, R, SQL, Pandas
Data Visualization : Tableau, Matplotlib, ggplot2, seaborn
IDEs : R Studio, Databricks, Jupyter Notebook, PyCharm, MS Office
Databases / Platforms : Amazon RDS, Snowflake, Amazon SageMaker, Git
Machine Learning and Analytics : Scikit-learn, Pytorch, Statsmodels.

Certifications and Achievements

- **Tableau Certified Desktop Specialist**
- Finalist at an IEEE-sponsored Hackathon 2019, for developing a machine learning solution to detect fraudulent pharmaceutical transactions in medical databases.