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Education

University of Connecticut, Storrs, CT — Expected December 2024
Master's degree in Data Science — GPA – 4 (on a scale of 4.0)

GITAM University, Vizag, India — August 2020
Bachelor of Technology, Computer Science and Engineering — GPA- 8.82 (on a scale of 10)

Academic Projects

Analyzing Insurance Claims for Future Financial Safeguard

- Developed and optimized predictive models (Random Forest, Logistic Regression, Probit) on a dataset of 1,338 instances, achieving an R-squared value of 0.873, enhancing model accuracy and interpretability.
- Addressed class imbalance by implementing oversampling and under sampling techniques, improving the classification accuracy of insurance claims by 15%.

Forecasting Freight Total Index Value

- Developed Forecasting Models: Utilized ARIMA, ARIMAX, and GARCH models to predict TSI values with over 85% accuracy, capturing trends and short-term shocks like COVID-19.
- Comprehensive Data Analysis: Analyzed 288 monthly data points (2000-2023), identifying patterns with 92% explanatory power in transportation service demand.
- Rigorous Model Validation: Achieved RMSE of 3.25 and MAE of 2.1 through in-sample and out-of-sample evaluations, ensuring high predictive accuracy.

Insurance Customer Complaints Classification

- Enhanced complaint resolution strategies by analyzing over 20,000 insurance complaints, leading to a 15% improvement in resolution time.
- Developed and deployed predictive models (Random Forest, Naive Bayes, and Logistic Regression) achieving an average ROC AUC score of 0.96, significantly improving the accuracy of complaint type classification.
- Optimized resource allocation by identifying high-frequency complaint types and reducing resolution time by 25%.

Industrial Food Price Forecast

- Spearheaded the time series analysis for development of a predictive modeling framework that achieved an impressive 97.63% explanatory power for the Total Industrial Product Price Index (IPPI).
- Successfully implemented advanced data preprocessing techniques, including imputation of missing values and elimination of redundant features, resulting in a streamlined and high-quality dataset for forecasting.

Work Experience

Data Engineer (3.10 years), Novus Platform Vizag, India — Sep 2019 - July 2023

- Led the design, development, and optimization of ETL pipelines, ensuring high-quality, consistent data availability, reducing processing time by 80%, and migrating storage from MySQL to S3, resulting in an 80% cost reduction.
- Enhanced data processing efficiency and real-time analytics by implementing Kafka streaming pipelines, optimizing Spark job performance from 8 hours to under 50 minutes, and dashboards with Tableau for improved business insights.

Python Developer Intern, NIT, Warangal, India — Apr 2019 - June 2019

- Developed a Python module facilitating student room allocation in a hostel comprising over 1.8k+ rooms.
- Acknowledged by NIT-Warangal management with an appreciation letter for significant contributions to the project.

Achievements

- Finalist in the 2024 BI&A LDP Case Competition among 400 students, presented an innovative AI architecture using AWS for the insurance sector, emphasizing efficient data extraction, ingestion, and analytical processing strategies.
- Achieved a benchmark performance of 0.19 by leading advanced analytics on insurance claims data, surpassing competition standards, and demonstrating exceptional problem-solving skills in data science.

Skills

- R, Statistical Modeling, Machine Learning, Data Mining, GGplot2, Python, Pandas, NumPy, SQL, Tableau, AWS, Generative Artificial Intelligence Fundamentals, Pyspark, Airflow, GitHub, Snowflake Fundamentals, ETL