Ronak Sankaranarayanan

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WORK EXPERIENCE:

Data Engineer — June 2022 - Present

Eficens Systems LLC

- Implemented automation of data transformation and loading processes, resulting in a **40% reduction** in manual workload and a **30% increase in the efficiency** of data integration with live Tableau dashboards.
- Improved **performance by 15%** through optimization of SQL queries on stored procedures, reducing execution time and enhancing system efficiency.
- Performed Data Modelling and Data Ingestion for large databases from diverse sources ranging in storage size from **GBs to 24 TB**.

Research Assistant — May 2021 - May 2022

Worcester Polytechnic Institute

- Implemented 3 different deep learning generative models for Synthetic Time Series data generation for Human Context Recognition (HCR) using Pytorch
- Streamlined data modeling, leading to a significant reduction of 180 GB in storage space and a 60% decrease in preprocessing time, ultimately improving overall system efficiency and performance.
- Evaluated the quality and diversity of the synthetic data generated by the models with Kullback–Leibler (KL) Divergence and Frechet Inception Distance (FID) score. The best model attained a low KL divergence and FID Score of **0.41 and 2.11**.
- Improved the performance of the Human Context Recognition Classifier model by introducing Synthetic data in the training phase by 24% across all evaluation metrics on real-world data.

Data Analyst — June 2019 - July 2020

Market Simplified India Limited

- Collaborated with the Developer team on integrating the existing mobile app with Firebase Crashlytics to detect major bugs and crashes, **reducing 12 hours of manual testing** in each sprint.
- Developed a live dashboard around Firebase Crashlytics using Tableau to visualize the information of the crash and provide key insights to senior management.
- Conducted A/B testing to optimize a student loan marketing campaign targeting a specific audience, utilizing web analytics and other key performance indicators to measure success. Resulted in a **15% increase in website visits** and other relevant parameters for the campaign.

EDUCATION:

Masters in Data Science — Aug 2020 - May 2022

Worcester Polytechnic Institute

Bachelors in Information Technology — Aug 2015 - May 2019

Anna University

SKILL:

Languages:	Python, R, SQL
Visualization:	Tableau, Power BI, Matplotlib, Seaborn
Database:	Snowflake, MySQL, SparkSQL, PostgreSQL, MongoDB
Technologies:	AirFlow, Pandas, Numpy, Hadoop, Apache Spark, Tensorflow, Pytorch, PySpark.
Analytics & ML:	Classification, Regression, Classification, Boosting algorithm, Time Series Forecasting, CNN, RNN, NLP, Predictive modeling, Web Analytics, Hypothesis Testing, Data Augmentation, Big Data Management, Big Data Analytics

ACADEMIC PROJECTS:

- Trained a GRU to identify and recognize human emotion from audio clips. Audio features such as Periodogram, Intensity, Fundamental Frequency, and HNR were used for training. Achieved an **accuracy of 65%** on the test dataset.
- Implemented Support Vector Machine (SVM), Random Forest, and XGBoost in R for a Movie Rating Prediction system. Preprocessed almost 500,000 records of rating from multiple JSON files. Accomplished an **F1 score of 0.75** on the XGBoost as the best performing and **0.41 F1 score** on SVM as least performing.