

Ganesh Raj K

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EDUCATION:

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- **MS in Data Science**, Rutgers University | CGPA – 3.75 Aug 2022 - May 2024
 - **BTech in Computer Science and Engineering**, Indian Institute of Technology Indore June 2015 - May 2019

EXPERIENCE:

Rutgers UCM, Data Analyst

Feb 2023 – Present, New Brunswick

- Harnessed learning data from canvas Api to predict new student course outcomes/CGPA grade using a classification model which scored a 78 percent success rate in classifying new students.
- The dataset consisted of 12 diverse features including demographic academic, behavioral, parent participation for the predictive modeling.
- Extracted data using canvas Api, preprocessed using python, and used ANN for the classification model.

Deloitte Consulting, Data Analyst

June 2019 – Jan 2022, Bengaluru

Banking:

- Mitigated the lockdown-induced customer churn by constructing a multivariate logistic regression model in an Agile environment to Identified churn-prone customers and key contributing factors.
- Performed EDA using matplotlib and communicated results to stakeholders. helped them target marketing accordingly resulting in a 30% churn reduction in the next quarter.

Restaurant Chain:

- Categorized restaurant patrons based on their dining preferences from survey data using K-Means clustering.
- Generated detailed Tableau visualizations to correlate the cluster results with their risk and safety behaviors.
- This analysis helped strategize marketing along with promotion of safety protocols. which led to an 74% increase in take away orders the next quarter.

Geospatial Intelligence:

- Addressed the challenge of manually identifying docked vessels by developing an object detection system using Mask R-CNN and OpenCV for change detection in Python.
- Accessed high-definition GIS satellite imagery from the Sentinel API in Python and dehazed the images for better results.
- Extracted the geolocation data of the detected objects using QGIS.
- Automated the entire process using AWS Lambda and CloudWatch, saving over \$100k in labor costs.

Key Achievement: Was recognized with Applause award twice for my client centric work approach and timely deliverables.

MAQ Software, Data Engineer

May 2018 – July 2018, Hyderabad

- Established an ETL pipeline using SQL Server Management Studio and SSIS, consolidating three large Azure data marts with over 2 million records into one. Developed triggers and stored procedures in place to identify inconsistencies during the transfer and maintain data integrity.

PROJECTS:

Chatbot with a personality: [\[github\]](#)

- Built a generative AI (Gen AI) model chatbot to replicate Chandler Bing's dialogue style from "Friends," utilizing an extensive dataset of 8,700 dialogues.
- Parallely fine tuned google's T5 small LLM model from Hugging face by generating features using hugging face feature generator for benchmarking purposes.
- The model, featuring a seq2seq with 2-layer LSTM network with a dropout layer, achieved a BLEU score of 0.63.

Twitter Search: [\[github\]](#)

- Designed a web application with a local cache of 200 trending tweets, leveraging a combination of Postgres (relational) and MongoDB (non-relational) to query a dataset of about 120,000 tweets from 13,000 users.
- Applied NLP techniques for efficient search, including synonym search and Levenshtein distance, and managed API requests with Flask

2024 Travelers Insurance Analytics University Contest: [\[github\]](#)

- Conducted Tweedie regression using LightGBM on a zero-inflated dataset of over 29,000 records, fine-tuned parameters using grid search, and assessed model efficacy with the Gini index. This systematic approach secured a

third-place finish among 200+ teams.

SKILLS

- Machine Learning Programming Languages: Python, R, huggingface, SAS
- Machine Learning Libraries and Frame works: PyTorch, scikit-learn, pandas, numpy, streamlit, Langchain
- Databases and analytics: SQL, MongoDB, DynamoDB, Tableau, Matplotlib, Numpy, pandas, plotly, seaborn

CERTIFICATIONS

- AWS Machine Learning Specialist
- AWS Cloud Practitioner