RUTHVIKA REDDY TANGIRALA

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EDUCATION

NORTHEASTERN UNIVERSITY, Boston, USA — May 2025
Master of Science in Data Science and Analytics — GPA: 4.0/4.0
Coursework: Database Management, Data Mining, Data Visualization, Machine Learning

SASTRA DEEMED TO BE UNIVERSITY, Thanjavur, India — Jun 2018 - July 2022
Bachelor of Technology in Electrical Engineering

TECHNICAL SKILLS

Programming languages: Python, R, SQL
Data Techniques: Data Management, Data Analysis, Data Mining, Data Visualization
Libraries: Pandas, NumPy, SciPy, Scikit-learn, Matplotlib, Seaborn, TensorFlow, Pytorch
Tools/Frameworks: Salesforce, MySQL, Jira, Excel, Slack, ServiceNow, Optum, Tableau, Power BI, Git
Certification: IBM Data Science Certificate, AWS Certified Cloud Practitioner, Google Data Analytics

WORK EXPERIENCE

NORTHEASTERN UNIVERSITY, Boston, USA — Sep 2023 – Present
Graduate Teaching Assistant | Programming with Python (*Data Science*, *Statistics*, *Probability)*

- Guided a class of 700 students through their learning journey through assistance with assignments, labs, projects, office hours and in-class activities. Supported grading, code reviews, and offered guidance to foster student growth and understanding.

IBM INDIA PRIVATE LIMITED, Hyderabad, India — Jan 2022 – Aug 2023
Salesforce Data Analyst | SQL, Salesforce CRM, Healthcare

- Developed and executed complex SQL queries within Developer Console to extract critical object data and data records, facilitating enhanced data-driven decision-making and significantly improving system performance.
- Designed and implemented interactive, real-time dashboards through data ingestion using ServiceNow data, including incidents and RITM records, to monitor production-level bugs and issues, providing weekly and monthly insights for proactive problem resolution and optimization.
- Spearheaded the development of an efficient Chatbot for 'Blue Cross Blue Shield' in Salesforce Cloud, using over 50 tailored instances per question for training and integrating machine learning for quick, accurate customer responses and streamlined case creation.
- Engineered the Broker Portal's UI of "Blue Cross Blue Shield" using LWC and backend by creating Apex classes in the virtual AWS Environment.

PROJECTS

EEG SIGNALS CLASSIFICATION ON SEIZURES | *Python, Analysis, Machine Learning*

- Classified EEG data to identify seizure events, employing Random Forest, XGBoost, and RNN models, adeptly applying predictive modelling for precise and insightful outcomes by using Google Collab.
- Performed hyperparameter tuning using Grid Search CV and Keras Tuner, optimizing model performance.
- Achieved high performance results with Random Forest (93% accuracy, perfect recall), XgBoost (91% accuracy), and RNN models (91% accuracy), demonstrating precision in seizure detection.

CUSTOMER SEGMENTATION USING RFM ANALYSIS | *Python, Analysis, Machine Learning*

- Segmented efficiently thousands of customers into 4 distinct groups to identify key behavioural metrics, including recency (2.05-3.68), frequency (1.25-3.72), and monetary value (1.58-3.72), can potentially enable development of targeted marketing strategies that significantly enhances customer engagement.
- Implemented K-Means clustering on RFM data, methodically testing up to 10 cluster variations to accurately determine the most meaningful customer segments, using inertia analysis for optimal market segmentation.

DATA ANALYTICS AND VISUALISATION OF TRAFFIC STOPS (LINK) | *Python, Analysis, Tableau*

- Crafted interactive dashboards for visualizing traffic violation trends, violation categories, temporal patterns, and stop locations, with dynamic filters and tooltips to improve data comprehension and user engagement.
- Conducted intricate data cleansing using statistical analysis on a large dataset of traffic violations, including handling 49 columns with missing data and standardizing categorical values.