# Ram Charan Polisetti

New York, United States ramchara@buffalo.edu (716) 256-7258 www.linkedin.com/in/ramcharanpolisetti https://github.com/saitejapolisetti

## EDUCATION

**MS in Data Science, University at Buffalo** | **University at Buffalo**

Buffalo, New York, December 2023

• Statistical Data Mining, Probability, Algorithm Analysis and Design, Data Analysis, Data Visualization, Machine Learning, Deep Learning, Web Scraping, Applications of Data Science.

## SKILLS

Industry Knowledge: Deep Learning, Machine Learning, Data Analysis, Natural Language Processing(NLP), ETL, Statistical Analysis and Modeling, Data Visualization, Image Processing, Quantitative analysis, and Pattern recognition.

Programming Languages: Python (Pandas, NumPy, Scikit-learn, Keras, TensorFlow, PyTorch, XGBoost, SciPy, Seaborne, Plotly, Beautiful Soup, Selenium), R, SQL, MATLAB, C.

Tools and Technologies: AWS, Docker, Snowflake, Tableau, Power BI, Git, Excel.

Interpersonal Skills: Cross-Functional Collaboration, Stakeholder Management, Problem-Solving, Adaptability, Process Improvement, and Supply Chain Optimization.

## EXPERIENCE

**Transportation Specialist** | **Amazon Development Center**

November 2020 - July 2022, Hyderabad, IN

• Led collaborative efforts across three teams to fix tool defects, streamlining dispatch scheduling through automation, slashing inaccuracies by 40%, saving 2.5 hours of operation time.
• Applied logistic regression models to identify high-risk carriers, resulting in a 15% decrease in fraud within the North American region. Crafted dashboards to monitor plant gridlocks and logistics issues, as well as KPIs and metrics, resulting in a 20% decrease in incidents.
• Optimized onboarding procedures by formulating Standard Operating Procedures (SOPs) and implementing automated daily tasks for transportation operations, yielding a 30% decrease in onboarding duration.

## PROJECTS

**Improving Civic Services through Data-Driven Insights: NYC 311 Request Analysis** | **University at Buffalo**

October 2023 - December 2023

Developed machine learning pipeline using SMOTE oversampling combined with RandomUnderSampler for balanced training sets, improving model performance on severely skewed NYC housing complaint data (34:1 ratio). Tuned Random Forest and XGBoost models through stratified cross-validation; achieved over 81% accuracy on test sets. Assessed model performance on noisy real-world data employing SMOTE and undersampling alongside accuracy, AUC-ROC, confusion matrix, and other metrics to select optimal approach for disproportionate class distributions.

**Reducing Churn Rate and Boosting Customer Retention: Telco Customer Churn Analysis** | **University at Buffalo**

January 2023 - February 2023

Compared 6 machine learning models and selected Gradient Boosting as best model for predicting customer churn, using the Python Scikit-Learn library. Enhanced Gradient Boosting precision to 86% by engineering 15 features and fine-tuning hyperparameters via RandomizedSearchCV. Refined data during initial exploration, rectified inconsistencies, and leveraged mutual information scores for precision enhancement, ensuring dataset robustness for subsequent analysis.

**Enhancing Media Integrity: A Fake News Detection Study on Buzzfeed Articles** | **University at Buffalo**

January 2023 - February 2023

Conducted an exploratory data analysis of authentic and counterfeit news articles in R to scrutinize language use, sources, and media inclusion. Applied text preprocessing techniques, encompassing stemming, stopword removal, and document-term matrix creation, enabling productive NLP workflows. Engineered machine learning models, attaining 80% accuracy with a Random Forest model, boosting performance via feature engineering by combining title and body text and extracted bigrams.

**Achieving Model Excellence: Development and Optimization of Machine Learning and Deep Learning Models** | **University at Buffalo**

February 2023 - April 2023

Developed and compared machine learning models: Gradient Descent, Linear Regression, and Ridge Regression, to deduce data-driven insights. Designed and refined Neural Networks using Dropout, optimizer selection, activation function tuning, and weight initialization, culminating in enhanced model performance. Implemented Convolutional Neural Networks, refining AlexNet and deploying VGG-13 for image classification. Spearheaded Reinforcement Learning tasks, shaping and handling the RL environment through SARSA and Q-learning.

**Uncovering Football Insights: Comprehensive Analysis of the European Soccer League with SQL** | **University at Buffalo**

March 2023 - April 2023

Analyzed European soccer data (2008-2016) with diverse SQL techniques (JOINs, aggregates, window functions, CASE, subqueries, CTEs) and uncovered a significant relationship between the number of goals scored by teams, and league standings. Built reusable views and custom metrics, including number of home goals, away goals, goal difference, and points, employing partitions, subqueries, and CTEs, for comprehensive evaluations of team attributes across seasons. Calculated season-specific statistics (goal average, tie game percentage, team performance metrics, and team performance chart) using SQL analytic and ranking functions (AVG(), ROUND(), RANK()).

## CERTIFICATIONS

**Google Data Analytics Professional Certificate** | **Coursera**

**Docker for Beginners** | **Eduonix**

**Intro to Hadoop and MapReduce** | **Udacity**

**Segmentation and Clustering** | **Udacity**