

RAM CHARAN POLISETTI

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EDUCATION

MS in Data Science, University at Buffalo, The State University of New York

Dec 2023

Relevant Coursework: Statistics, Probability, Data Mining, Algorithm Analysis and Design, Data Analysis, Data Visualization, Machine Learning, Web Scraping, Applications of Data Science.

SKILLS

Programming Languages: Python (Pandas, NumPy, Scikit-learn, Keras, TensorFlow, PyTorch, Seaborn, Pyplot, BeautifulSoup, Selenium), R (ggplot2, dplyr, caret, randomForest, tidyr, stringr).

Data Analysis Tools: SQL, AWS, Snowflake, Tableau, Power BI, Excel.

Analytics Skills: Machine Learning, NLP, ETL, Statistical Analysis, Data Visualization, Quantitative analysis, and Pattern recognition.

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

PROFESSIONAL EXPERIENCE

Transportation Specialist, Amazon Development Center, Hyderabad, India

Nov 2020 - Jul 2022

- Collaborated with three teams to identify and resolve tool defects, utilizing Selenium for daily transportation task automation. This initiative resulted in a 40% increase in operational efficiency and saved 2.5 daily hours.
- Orchestrated data analysis and enhanced performance via SQL queries, culminating in an 8% cut in empty miles.
- Devised logistic regression models in Python to unearth high-risk carriers, resulting in a 15% decrease in fraud within the North American region.
- Developed and implemented innovative data-driven solutions, including a new scheduling algorithm, reduced trailer wait times by 50%, and improved overall transportation efficiency.
- Engineered dashboards to oversee facility gridlocks, expediting timely mitigation and yielding a 20% reduction in delays.
- Streamlined onboarding by creating Standard Operating Procedures (SOPs) to document and optimize processes, reducing training time by 30%.

Application Engineer Intern, National Instruments, Bangalore, India

Dec 2019 - Feb 2020

- Assisted in developing and executing a data acquisition system, resulting in improved accuracy and efficiency of structural and systems tests.
- Employed Laboratory Virtual Instrument Engineering Workbench to design and deploy real-time applications. Maintained detailed documentation throughout root cause analysis processes, leading to a decrease in time spent on identifying and resolving failures by 15%.

PROJECTS

NYC 311 Request Analysis

Collaborated with a team of three members and scrutinized NYC 311 complaint data to identify and model top complaint types leveraging Pandas, NumPy, Matplotlib, GeoPandas, Seaborn, Scikit-learn, and XGBoost. Discerned spatial patterns and correlations between complaints and building features; constructed predictive models with an 82% accuracy rate.

Telco Customer Churn Analysis

Created a churn prediction model to spot at-risk customers, leveraging Pandas and Scikit-learn. Analyzed customer data and evaluated SVM, Random Forest, and XGBoost for prediction; achieved ~80% test accuracy by tuning a Gradient Boosting model through grid search- flagging at-risk customers and bolstering retention.

Fake News Detection on Buzzfeed Articles

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 that combined title and body text and extracted bigrams.

SQL Data Analysis: European Soccer League

Utilized advanced SQL skills, incorporating window functions and CTEs, to comprehensively analyze a football database. Formulated optimized queries to calculate moving averages for goals scored and rankings, and compare team performance across seasons. Integrated datasets across multiple tables via SQL joins and transformations to generate a unified data view.

Machine Learning and Deep Learning Models Development and Optimization

Developed and compared machine learning models, including 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 using SARSA and Q-learning