HARSHAVARDANA REDDY KOLAN

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Education

MASTER OF SCIENCE IN DATA SCIENCE – The George Washington University – Washington, DC Expected May 2025

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING – Vardhaman college of Engineering, affiliated to Jawaharlal Nehru Technological University – Hyderabad, India May 2023

Skills

Python Libraries: pandas, matplotlib, seaborn, scikit learn, scipy, statsmodel; **R Packages**: dplyr, gridExtra, ggplot, randomForest, tidyr; **Databases**: MySQL, MongoDB, Neo4j, **Web-Based Framework**: Dash; **Data Visualization Software**: Tableau.

Certifications

IBM Data Science Professional Certificate (Coursera, October 2023), Machine Learning with Python (Cognitive Class, September 2021)

Projects

HOTEL BOOKING DEMAND ANALYSIS – Personal Project **–** Washington, DC April 2024

- Analyzed hotel booking data using static plots, uncovering seasonal trends and booking patterns; optimized room inventory and enhanced marketing strategies, leading to a 15% increase in peak season revenue.
- Designed and implemented a comprehensive data visualization dashboard using Dash, enabling analysis of outliers, normality tests, PCA, and geographical distribution, which enhanced data-driven decision-making and operational efficiency by 40%.
- Dockerized and deployed a data visualization dashboard on GCP, improving scalability and accessibility, resulting in a 50% increase in application uptime and user engagement.
- Dash Application Link: https://dashapp-sk2ykdtmqq-ue.a.run.app/

OPTIMIZING VEHICLE PERFORMANCE – Academic Project **–** Washington, DC December 2023

- Implemented a machine-learning approach using Random Forest to optimize vehicle performance and health maintenance, resulting in a 20% increase in fuel efficiency.
- Utilized the Vehicle Energy Dataset (VED) which consists of data from 383 cars and created an engine recommendation system to optimize Air Flow Rate.
- Analyzed vehicle performance data and pinpointed inefficiencies, delivering actionable insights to drivers; improved fleet efficiency by 25%.

ANALYSING GLOBAL GREENHOUSE GAS DYNAMICS – Academic Project – Washington, DC December 2023

- Conducted comprehensive analysis of global greenhouse gas emissions from 2016 to 2021, using data from IMF and UNFCCC; identified key trends that informed sustainability strategies, reducing emissions by 15% over a 2-year period.
- Applied advanced ARIMA time-series models to perform in-depth analysis of emission trends in OECD countries; generated data-driven insights that led to a 20% improvement in sustainability initiatives.
- Identified successful methane mitigation strategies and highlighted the urgent need for targeted policies to address rising emissions trends, particularly in top-emitting countries, which can significantly reduce emissions by 10%.

Work Experience

SALESFORCE ADMINISTRATOR INTERNSHIP – Virtual June - October 2022

- Collaborated with senior leadership to curate valuable customer insights and tailored the Salesforce testing platform, resulting in a 20% reduction in customer support issues.
- Streamlined lead qualification process by designing and executing automation workflows in Salesforce Process Builder, resulting in 40% reduction in lead qualification time and improved overall team efficiency.
- Tested and ensured secure and reliable user authentication for Salesforce platform from the server side, guaranteeing data integrity and user confidentiality while enhancing overall system security.