DINESH T

DATA SCIENCE | BUSINESS ANALYST

thennarasudinesh14@gmail.com 6379010602 Dinesh T | LinkedIn

I am an aspiring data scientist with a strong foundation in statistics, machine learning, and data analytics. Through academic research and hands-on projects, I have developed practical experience in data preprocessing, exploratory analysis, predictive modeling, and impactful data storytelling. My work spans domains such as energy forecasting, healthcare analytics, and social impact projects. My goal is to contribute to data-driven decision-making and create solutions that generate tangible value. I thrive in collaborative environments and am always looking to learn, explore new technologies, and grow as a data professional.

PROJECTS

CUSTOMER SEGMENTATION USING MACHINE LEARNING

Python | Data Visualization | K-Means | Clustering

- Customer segmentation, a fundamental aspect of modern marketing and business strategy.
- Involves classifying customers into distinct groups based on shared characteristics and behaviors.
- This project leverages the power of machine learning, specifically the K-means clustering algorithm, to achieve this goal.
- The project concludes with the identification of the optimal number of clusters using the Elbow Method and presents visualizations of the clusters.

FAKE NEWS DETECTION USING DEEP LEARNING

Deep Learning | NLP | Keras | Seaborn | Clustering | LSTM

- Fake news detection, an essential application in the fight against misinformation,
- Involves classifying news content as fake or real by analysing text patterns, semantics, and context.
- This project leverages the power of deep learning, specifically using Long Short-Term Memory (LSTM) networks, to capture complex language dependencies and contextual cues for accurate classification.
- The project concludes with the evaluation of the LSTM model's performance using metrics such as accuracy, precision, recall, and F1-score, alongside visualization of training/validation loss curves and confusion matrix for comprehensive insight.

ENERGY DEMAND FORECASTING

Time Series Forecasting | Machine Learning | Python | Prophet

- Electricity demand forecasting is crucial for effective energy management and smart grid operations.
- This project utilizes machine learning and deep learning models to predict short-term electricity demand in Delhi, driven by weather-related factors like temperature, humidity, and wind speed.
- The project applies models such as Prophet and LSTM to capture seasonal patterns and time-based trends in electricity usage.
- Model performance is evaluated using metrics like MAE, RMSE, R^2, and MAPE to ensure accuracy and reliability.
- The Prophet model is identified as the best-performing model due to its ability to handle seasonality and missing data with minimal preprocessing.
- The project concludes with a comparative analysis of multiple models and presents key insights through performance visualizations and metrics.

SKILLS

Programming & Databases: Python, SQL, Machine Learning, R, Java (Basic)
Data Visualization & Tools: Excel, Python (Matplotlib, Seaborn), Power BI
Data Science, Analysis & ML/DL: Data preprocessing, EDA, Regression, SVM, KNN, Decision Tree, Random Forest, Time series analysis, CNN
Soft Skills: Strong analytical skills, written and verbal communication skills, problem-solving, Presentation skills

EDUCATION

VELLORE INSTITUTE OF TECHNOLOGY (Vellore, Tamil Nadu)
Msc. Business Statistics (2023-Present)

SRI RAMAKRISHNA COLLEGE OF ARTS AND SCIENCE (Coimbatore, Tamil Nadu)
BSc. Computer Science (2019-2022)

CO-CURRICULAR ACTIVITES

Position of Responsibility

- Captain of College Football Team

Volunteering

- NSS Volunteer
- 2 times Blood Donated at Blood donation camp.

Languages Known

- English
- Tamil
- Hindi
- Telugu