PAYIDI VENKAT SAINATH

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Education

National Institute of Technology,Andhra Pradesh 2020 – 2024
Bachelor of Technology in Electrical and Electronics Engineering
CGPA : 7.94

Narayana Junior College
Intermediate
MARKS: 972 out of 1000

Sri Chaitanya Techno School
Secondary Education
GPA: 10

Skills

Programming Languages: Python, JavaScript, HTML, CSS, SQL

Data Science and Analytics: Machine Learning, Deep Learning, Natural Language Processing(NLP)

CS Fundamentals: DBMS, Data Structures and Algorithms

Frameworks and Libraries: NumPy, Pandas, Matplotlib, Seaborn, Plotly, Scikit-Learn, TensorFlow, Keras, Gradio, Pytorch, Tkinter, Pygame

Tools and Technologies: VSCode, Sublime Text, Matlab, Jupyter Notebooks, Google Colab.

Projects

Assessment and Comparison of Classical and Machine Learning based Load Forecasting for Smart Grid
***Tech used**: Machine Learning,Python,NumPy,Pandas,Scikit learn,Matplotlib,TensorFlow,Statsmodels,Linear Regression, Recursive Feature Elimination (RFE),Artificial Neural Networks (ANN), Gated Recurrent Units (GRU),Exponential Smoothing*

- Implemented **Multiple Linear Regression**, **Exponential Smoothing**, **Artificial Neural Network**, and **Gated Recurrent Unit** models for load forecasting across 5 state load dispatch centers.
- Identified the GRU model as the top performer with an exceptionally low MSE of 0.00002043654
- Achieved significant performance improvement by implementing ANN and GRU, leading to a reduction in MSE ranging from 99.12% to 99.55% compared to classical Exponential Smoothing and MLR methods.

Flower Classification using TensorFlow
***Tech used*:** *Machine Learning,Python,TensorFlow,Keras,Matplotlib,PIL (Python Imaging Library),Gradio,Convolutional Neural Network (CNN)*

- Developed a **Convolutional Neural Network** based flower classification model using **TensorFlow**, achieving an accuracy of 85.46%.
- Implemented dropout regularization with a rate of 0.2 to prevent overfitting by randomly dropping 20% of neurons during training.
- Created a user-friendly interface using **Gradio** to allow users to interactively classify flower images using the trained model. Users can upload images or use their webcam for real-time classification.

Experience

VIsakhapatnam Steel Plant 06/2022 – 07/2022
Intern Visakhapatnam, India
- Analyzed *Variable Voltage* and *Variable Frequency Drives* for Electric Overhead Travelling (EOT) cranes.
- Specialized in *DC Drive motors* with extensive practical knowledge.
- Experienced in diverse industrial applications of DC Drive motors.

Certificates

- NPTEL - Natural Language Processing
- NPTEL- Data Base Management System
- Game Development using Pygame

Declaration

I hereby declare that all the information provided is true to the best of my knowledge