

PAYIDI VENKAT SAINATH

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🌐 Venkat Sainath 🎧 Venkat Sainath

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: Git Bash, 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.

Interests

My interests: Python | Machine Learning | SQL | PowerBI | Tableau | BigQuery | Snowflake | Redshift

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