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

Web Development: JavaScript, React.js, Express.js, Node.js, PostgreSQL, SQL, JSON, RESTful API, NPM, Bcrypt, Knex, Bootstrap, Tachyons, CSS, HTML

Data Science and Analytics: Python, Machine Learning, Deep Learning

CS Fundamentals: DBMS, Data Structures and Algorithms

Platforms: Postman, Git, pgAdmin 4, TensorFlow, Keras, Gradio, Bootstrap, Matlab, 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.

Face Detection Website
***Tech Used:**JavaScript,React.js,Express.js,Node.js, PostgreSQL,SQL,JSON,RESTful API,NPM,Bcrypt,Knex,Tachyons,CSS,HTML*

- Developed a face detection website using **React.js** for the frontend, **Node.js**, **Express.js**, JSON for the backend, **SQL**, **PostgreSQL** for the Database, Machine Learning API. All components are connected using **Knex**, achieving 100% accurate face detection.
- Employed **Bcrypt** for 100% password protection.
- Leveraged user experience by 30% by employing a rank-based system on the website.

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