MADHAVENDRA SINGH

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Education

Pandit Deendayal Energy University, Gandhinagar **2022- 2026**
- Computer Science | CGPA: 8.85

Delhi Public School, Udaipur, India **2020 - 2022**
- *AISSCE (Class XII), Aggregate:94%*

Delhi Public School, Udaipur, India **2019 - 2020**
- *AISSE (Class X), Aggregate:91%*

Skills

Tech: *C++, R, Python, JavaScript, PHP, SQL, Excel*

Developer Tools: *Git, GitHub, Visual Studio, VS Code*

Operating Systems: *Linux (Ubuntu / Kali), Windows, Android*

Soft Skills: *Problem Solving, Time Management, Teamwork, Leadership, Accountability, Teaching, Communication*

Areas of Interest: *Machine Learning Algorithms, Algorithms, Statistical Analysis and Hypothesis Testing, Natural Language Processing (NLP),Digital Image processing*

Work Experience

Baankey Bihari Society | **Social Intern** **May'23 - Jul'23**
- Worked as a Team Leader.
- Managed a Oral Cancer Screening camp and created a database of patients.
- Understood Usage of Machine Learning in Oral Cancer Detection.

Projects

Movie Recommender System | Github
Python, Streamlit
Developed a Content-Based Movie Recommender System*:* Used word vectors to represent movie plot summaries, calculating similarity with cosine distance to recommend movies based on content similarity
Deployed Interactive Recommender System Using Streamlit: Built a user-friendly web app to dynamically recommend movies to users based on input preferences, enabling real-time updates and an intuitive interface.

Movie Review Sentiment Analyzer | Website | Github
Python, Tensorflow, Keras, Streamlit
Developed an RNN-Based Movie Sentiment Analyzer: Implemented a Recurrent Neural Network (RNN) using LSTM/GRU layers to classify movie reviews as positive or negative, leveraging sequential data processing capabilities for accurate sentiment analysis**.**
Preprocessed Text Data for Model Input: Tokenized and padded movie reviews, encoded sentiment labels, and split the dataset into training, validation, and test sets to ensure optimal performance.
Achieved High Classification Accuracy: Fine-tuned hyperparameters such as learning rate, number of layers, and dropout regularization resulting in an accuracy of 90% on the test dataset.
Deployed Sentiment Analyzer with Streamlit: Built an interactive web application to allow users to input custom reviews and receive real-time sentiment predictions in an intuitive interface.

LSTM Model for Stock Price Forecasting | Github
Python, Keras, Scikit, Tensorflow
Developed an LSTM-Based Stock Price Prediction Model: Designed and implemented a Long Short-Term Memory (LSTM) neural network to predict future stock prices based on historical time series data.
Preprocessed Time Series Data for Model Input: Normalized stock prices, created sliding windows of past data, and split the dataset into training, validation, and test sets for robust model training.
Achieved Accurate Stock Price Predictions: Fine-tuned hyperparameters such as sequence length, number of LSTM units, dropout rates, and learning rate to optimize the model's predictive accuracy.
Visualized Prediction Trends: Plotted predicted vs. actual stock prices and displayed trends over time to evaluate model performance on unseen test data.

Relevant Coursework

- Data Structures & Algorithms
- Computer Networks
- Discrete Mathematics
- System Software & Compiler Design
- Object Oriented Programming with Java
- C Programming
- Database Management System
- Artificial Intelligence
- Digital Image Processing

Positions of Responsibility

Cretus (Robotics Club) | Sub-Committee Member **Jan'24 - Present**

- Participated in organizing workshops and events, contributing to logistical planning and resource allocation.
- Engaged with team discussions and activities to enhance understanding of robotics concepts and club operations.

Certificates

- **Coursera** - Supervised Machine Learning: Regression and Classification
- **Coursera** - Advanced Learning Algorithms
- **Coursera** - Unsupervised Learning, Recommenders, Reinforcement Learning