# **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**

C++ | C | Java | Python | Machine Learning | JavaScript | PHP | React | Algorithms | R | Image Processing | MySQL | Git

# 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

# **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