S SANDHYA RANI

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Education

M.Tech in Energy Science And Technology **Aug. 2022 – May 2024**
Indian Institute of Technology, Hyderabad, Telangana *CGPA: 8.57/10*

M.Tech in Control and Instrumentation **Aug. 2021 – June 2022**
Motilal Nehru National Institute of Technology, Prayagraj, UP *CGPA: 8.2/10*

B.Tech in Electrical Engineering **Aug. 2015 – June 2019**
Rungta College of Engineering and Technology, Bhilai, CG *CGPA: 8.51/10*

Relevant Coursework

- Advance Deep Learning with TensorFlow/Keras
- Neural Networks
- Data Science Analysis
- Machine Learning
- Probability
- Linear Algebra
- Signals and Systems

Projects

Low-Light Image Enhancement using CNNs **April 2023**
- The project aims to use deep learning based method for low-light image enhancement.
- Used MBLLEN(multi-branch low-light enhancement network) where the idea is to extract rich features up to different levels and then apply enhancement via multiple subnets and finally get the enhanced output image.

Sentiment Analysis of IMDB Movie Reviews **April 2023**
- This project aims to identify the overall sentiment or opinion expressed by a reviewer towards a movie.
- Implemented Word2Vec embedding, LSTM, and Bi-LSTM architectures using Gensim and TensorFlow for sentiment classification.

Collaborative Filtering Based Explainable Movie Recommendation System **Feb 2023**
- This project aims to recommend a movie based on the user's choice with the help of movies dataset.
- It has been designed with the basics of the NLP by using Tokenization, Stemming, Lemmatization and Tfidf Vectorizer to filter out or predict the users' film preferences based on their past choices and behavior.

Facial Expression Detection using Convolution Neural Networks **Dec 2022**
- The project aims to train a convolutional neural network model on FER2013 dataset recognizing 7 emotions (6 basic emotions and neutral faces).
- Proposed 'CNN + Landmarks' model which outperforms vanilla CNN.

Credit Card Fraud Detection **Dec 2022**
- The project aims to recognize fraudulent credit card transactions so that customers are not charged for items that they did not purchase.
- Trained the various classifiers on the dataset(imbalanced) of credit card transactions sourced from European cardholders containing 284,807 transactions. A hybrid technique of under-sampling and oversampling is carried out on the skewed data.
- Checked comparative performance of Naïve Bayes, K-nearest neighbor, Logistic regression, and Deep Neural Network models in the binary classification of imbalanced credit card fraud data.

Customer Churn Prediction using Artificial Neural Networks **Dec 2022**
- Based on the Telco Customer Churn dataset I have trained a model which can predict the churn rate of customer lifetime value modeling that guides the estimation of net profit contributed to the whole future relationship with a customer.
- It calculates the percentage of discontinuity in subscriptions by customers of a service or product within a given time frame.

Technical Skills

Programming Languages: Python, C, C++
Tools: Tensorflow, Keras, Numpy, Pandas, Sci-kit Learn, OpenCV
Technical: Data Science, Machine Learning, Deep Learning, Neural Network

Achievements | Extracurricular

- Placement Coordinator(OCS) at IIT Hyderabad 2023
- IEEE (SCES-2022) Coordinator, Organised in MNNIT Allahabad,2022
- 96.26^{th} percentile (AIR 2607) in GATE-22 and 99.65^{th} Electrical Engineering.
- Achieved Scholarship in 10th and 12th Merit Holder in school