Andiboyina Mourya Chakradhar Nagesh | Roll no. 21f1004666
Indian Institute of Technology Madras

EDUCATION

Program	Institution	%/CGPA	Year of completion
BS in Data Science and Applications	Indian Institute of Technology Madras	8.35/10	2024
B.Tech in Electrical Engineering	Indian Institute of Technology Roorkee	5.4/10	2021
STD XII	Sri Chaitanya Junior College	96.5%	2014
STD X	Ravindra Bharathi School	95%	2012

SKILLS

- **Languages:** Python, Javascript, SQL, Bash, R
- **ML and DL Libraries:** Pytorch, Tensorflow, Keras, Numpy, Scikit-learn, Pycaret, Hugging face
- **NLP Libraries:** Spacy, NLTK
- **Data Analysis and Visualization Tools:** Tableau, Plotly, Pandas, Pandas, Polars, Matplotlib and Seaborn, ObservableHQ, GGPlot.
- **Databases and ORMs:** PostgresSQL, SQLite, SQLAlchemy.
- **Cloud Services:** AWS (S3, EC2 and Sagemaker), Google Cloud (Compute Engine, GCF)
- **Web Frameworks:** Vue.JS, Flask, Socket.IO, WebRTC, node.JS, Selenium

PROFESSIONAL EXPERIENCE

1. **Data Science Internship at GAVS Technologies** **(Apr 2023 - Nov 2023)**
   - Video Transmission from one client to another using different technologies like WebRTC and Socket.IO and compare the differences.
   - Plot the coordinates of the motion skeleton from the video using mediapipe library and savc these coordinates into a data formats such as parquet, csv etc.
   - Built a preprocessing pipeline to process to these files and convert into TFRecord files which can be used by the dataloader to load it into the model.
   - Built a transformer model which can use this processed data to classify the hand gestures from the sign languages into words.

PROJECTS

1. **Iris Recognition using Matlab** **(Jan 2018 - Apr 2018)**
   - Detect and Extract Iris from the eye image using Daughman Algorithm and mask the resultant segment using MATLAB
   - Recognize and identify the extracted iris and compare it with others from the database using Hamming Distance as a metric.

2. **Urban Sound Classification** **(Aug 2018 - Dec 2018)**
   - Visualize the audio signals using spectrogram and perform pattern analysis to identify various noise signals.
   - Using spectrograms of this audio signals as input data to CNN, we classify various noise signals.

3. **Speech Separation using CVAE -ICAIA 2019 Conference** **(Jan 2019 - Aug 2019)**
    - Recover the original speech signal from the noisy signal which is a mixture of noise and a speech signal.
    - Performed pattern analysis from spectrograms, and various audio visualization and train the model to separate the speech signal.
    - Measure the difference between recovered signal and the original signal with speech intelligibility index.

4. **Course Projects**
    - **Modern Application Development II:** Develop a Full Stack web app using Flask framework for backend API and Vue. JS for frontend client **(Feb 2022 - Apr 2022)**
    - **Machine Learning Practice:** Paricipate in a Kaggle competition, perform Data Analysis and visualization on the given data. Based on the analysis, implement various machine learning models to train the data and tune their parameters. **(Aug 2022 - Nov 2022)**
    - **Software Enginerring:** Develop a Student Support Ticketing System web app with the same tools (Flask for backend and Vue for frontend) using agile methodology and tools such as kanban and jira. **(Feb 2023 - Apr 2023)**
    - **Data Visualization Design:** Perform Data analysis and visualization on the data gathered from the students to identify socio-economic conditions, preferences, habits and infer a story from the analysis. **(June 2023 - Aug 2023)**