AJMEERA KIRANCHANDRA| CH18B105

INDIAN INSTITUTE OF TECHNOLOGY MADRAS **PR/11/CH/24/105**

EDUCATION

Program	Institute	% / CGPA	Year
Dual Degree in Chemical Engineering	Indian Institute of Technology, Madras	6.51	2023
Class XI+XII (State Board of Telangana)	Narayana College, Hyderabad, Telangana	95.3%	2018
Class X (State Board of Telangana)	Geethanjali Digi School Narsampet, Warangal	9.3	2016

RELEVANT COURSEWORK

Mathematical Foundation for Data Science	Programming for Everybody	Introduction to Data Analytics
Multivariate Data Analysis	SQL Data Analytics	Numerical Tech for Engineering
Probability Statistics and Stochastic Process	Introduction to Data Science(Infosys)	Programming data structures and algorithms NPTEL *
Machine learning and deep learning in Python	Python for Data Science(NPTEL)	* - Ongoing courses

SKILLS

Programming Languages	Python, Matlab, SQL
Frameworks and Libraries	Tensorflow, NLTK, Regex, Open-CV, Scikit-learn, Flask, Pandas, Numpy ,Matplotlib, Seaborn,Streamlit
Visualization Tools, and Scrapping	Tableau, Excel, Spreadsheets, BeautifulSoup

PROFESSIONAL EXPERIENCE

Project*

SOYBEAN YIELD PREDICTION IN MADHYA PRADESH USING DEEP LEARNING TECHNIQUES

- Actively exploring existing methodologies for predicting soybean yield in Madhya Pradesh
- Constructing a sophisticated deep learning model for precise soybean yield prediction. Incorporating relevant data sources such as satellite imagery, climate data, and soil information.
- Utilizing deep learning techniques, such as CNN and LSTM, to develop an accurate model for predicting soybean yield in Madhya Pradesh.

Dual Degree Project
Kaatru
(Aug 2022-May2023)

Optimal Deployment Strategy for Ambient Air Pollution Sensing

- Collaborated with the Kaatru team and collected data from various static and mobile sensor devices. Our strategy involved deploying sensors in a way that maximized the coverage area
- **Analytical Sensor Placement**: Employed an analytical method, initially assuming circular coverage, to determine the best locations for sensors to enhance ambient air pollution sensing.
- **User-Friendly App:** Created a web application using advanced algorithms, ensuring precise sensor deployment to reduce overlaps and maximize coverage in priority pollution zones.
- **Comparison and Successful Launch**: Compared analytical and optimization approaches, resulting in the successful launch of the web app. This has effectively optimized resource allocation and operational efficiency for ambient air pollution sensing.

Business Technical Analyst Intern
Inauid
(June - July 22)

- Web scraped data from various websites using BeautifulSoup.
- Developed a sentiment analysis pipeline using a vectorization model and an ML algorithm with an accuracy of 85%
- Designed an RNN model for sentiment analysis.
- Created a Streamlit web application and integrated the Joblib model. Finally deployed the model on Heroku and made it available to a wider audience.
- Created a chatbot with Python and machine learning

PROJECTS

Machine-Learning-WebApplication

- Developed an interactive web app using Python and Streamlit that allowed users to load, explore, visualize, and interact with data, and generate dashboards instantly.
- Integrated a classification algorithm selection feature that allowed users to choose between Logistic Regression, Random Forest, and Support Vector Machine algorithms.
- Tested the web app on a mushroom dataset to classify them as edible or poisonous

Data analytics projects

- **WhatsApp chat analyzer**
  - Developed a WhatsApp chat analyzer that analyzed various features of a chat, such as the most active user, most busy time period, and messages per user.
  - Created an interactive website using Python and Streamlit that allowed users to visualize the chat data.
- **Kaatru Team Project**
  - Collaborated with the team Kaatru to visualize data gathered from different static and mobile sensors to determine whether PM 2.5 values were in a hazardous range

Prediction of COVID-19 from Chest X-ray Images

- Built and trained a convolutional neural network (CNN) model from scratch in Keras with TensorFlow as the backend to predict COVID-19 from X-ray images.
- Successfully implemented the model on X-ray image data and achieved 97.9% accuracy.
- Used a sequential model with a combination of convolutional layers, pooling layers, dropout layers, dense layers with ReLU activation, and an output layer with sigmoid activation.
- Collected and pre-processed X-ray images from a diagnostic center.
- Evaluated the model performance using accuracy, precision, recall, and F1 score.

POSITION OF RESPONSIBILITY & EXTRACURRICULAR ACTIVITIES

- volunteered for the **Content Development** program launched by Ivil, in collaboration with the NGO 'eVidyaloka'
- Participated in events like poetry writing, story writing, and speech in BALOTSAV,2016
- Volunteered in project Shravyam which helps blind people by creating recorded versions of Novels and Books.