Mahaveer Regar

B.Tech Chemical Engineering

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Degree	University/Institute	Year	CGPA/Marks(%)
B.Tech Chemical Engineering	IIT Hyderabad	2025	7.28
XII (Rajasthan Board of Secondary Education (RBSE))	Gyandev Public Sr. Sec. School, Sikar	2020	98.20%
X (Rajasthan Board of Secondary Education (RBSE))	Gyandev Public Sr. Sec. School, Sikar	2018	93.83%

SKILLS

- **Programming Languages**: Python, C++, SQL.
- **Machine Learning Specialization**: Feature Engineering, Supervised Machine Learning, Recommender Systems.
- **Deep Learning Specialization**: ANN ,CNN, RNN, LSTM, NLP, Attention Mechanism, Transformers, Methods for Improving Neural Networks' Performance.
- **Data Structures:** Arrays, Linked Lists, Stacks, Queues, Binary Trees, Dictionary, Graphs.
- **Algorithms**: Sorting, Searching, Graph Algorithms, Dynamic Programming, Complexity Analysis
- **CS Fundamentals**: MySQL, Operating Systems, OOPs.
- **Libraries**: Scikit Learn, Pandas, Numpy, Matplotlib, Keras, Tensorflow, NLTK.
- **Development Tools & IDEs**: IntelliJ IDEA, Visual Studio Code, PyCharm, Google Colab.

RELEVANT COURSES

- **Computer Science**: Introduction to Programming
- **Mathematics**: Numerical Methods, Advance Numerical Methods, Calculus, Linear Algebra, Applied Mathematics For Chemical Engineers(included various topics on statistics and probability)
- **Data Science and Machine Learning:** Data Science and Analysis, Machine Learning for Process Systems Engineering

PROJECTS

Food Delivery Chatbot:

- A food delivery chatbot that combines Dialogflow for understanding and processing natural language, a Python backend with FastAPI to handle server-side tasks smoothly, and MySQL to manage data efficiently.
- Allows users to track the status of their orders in real-time and receive updates on delivery progress.
- Tech Stack: Dialogflow (Framework), MySQL(Database), FastAPI(Backend Framework)

Movie Recommender System:

- A web application that offers personalized movie recommendations by analyzing user preferences and historical movie data.
- It uses vectorization techniques like Bag of Words to convert movie keywords into vectors. Using Cosine Similarity it recommend movies.
- Tech Stack: Pycharm(IDE), Python(language), NLTK, scikit-learn, Numpy , Pandas, Streamlit)

Jarvis Personal Assistant:

- A versatile personal assistant named Jarvis which assist you with many functionalities like Weather forcasting, retrieves and provides location details, Communication (Texts via WhatsApp and sends emails), system condition, provides news, play videos on youtube, conversational AI (chatgpt like functionalities) and may more functions it provides.
- Tech Stack: Pycharm(IDE), Python, Hugging Face API, News API, OpenWeatherMap API

Stock Price Prediction:

- Implemented a Stock Price Prediction system by combining Time Series Forecasting techniques with LSTM (Long Short-Term Memory) models.
- It fetches real time data from Yahoo fnance library of python.
- Tech Stack: Python(language), Google Colab(IDE), ML libraries(Yahoo fnance, Tensorfow, Numpy , Pandas, Matplotlib)

Whatsapp Chat Analyzer:

- Developed a WhatsApp chat analyzer tool to analyze and visualize messaging data from WhatsApp conversations, providing insights into communication patterns and frequency of interactions.
- Creates interactive visualizations using Streamlit to present data insights. Features include graphs and charts depicting message frequency, sentiment trends, and participant engagement.

Tech Stack: Python(language), Pycharm(IDE), ML libraries(scikit-learn,NLTK, Numpy , Pandas, Streamlit)

EXPERIENCE

Data Analyst | Quantium Dec 2023 - Feb 2024

- Developed expertise in data preparation and customer analytics, utilizing transaction datasets for commercial insights.
- Provided comprehensive reports to Category Manager, enabling evidence-based decision-making and enhancing commercial applications.
- Tech Stack : Python, Excel, Power Point, SQL

LSTM-Based Classifier for Multi-Cluster Video Data Analysis | Research Project Jan 2025 - On going

- Developed a *machine learning pipeline* to classify video-derived data points into predefined clusters, enabling accurate and efficient data classification.
- Designed a *preprocessing pipeline* using *one-hot encoding* and *sliding window segmentation* to convert raw video data into time-series input.
- Built and optimized an *LSTM-based classifier*, outperforming *ANN and RNN models* in accuracy and reproducibility through iterative fine-tuning.
- On going research under the guidance of ***Dr. Lopamudra Giri, Associate Professor, IITH.***