






# Renu Sankhla

 [renu-sankhla.github.io](https://github.com/renu-sankhla) |  [sankhla2](https://github.com/sankhla2) |  [renusankhla](https://www.linkedin.com/in/renusankhla) |  [sankhla.2@iitj.ac.in](mailto:sankhla.2@iitj.ac.in) |  +91-7357194601

## EDUCATION

**Indian Institute of Technology (IIT) Jodhpur, India**  
Bachelors of Technology in Artificial Intelligence and Data Science

CGPA: 6.84/10.0  
2021 - 2025

**Shiv Jyoti Senior Secondary School**  
**Subjects :** Maths, Physics, Chemistry, English, Hindi

RBSE: 86.00%  
2020

**Balika Adarsh Vidya Mandir**  
**RBSE:** Rajasthan Board of Secondary Education

RBSE: 84.00%  
2018

## EXPERIENCE

**DocVQA Using Knowledge Graph**  
Under the guidance of Prof. Shantanu Chaudhary (Director, IIT Jodhpur)

**Jodhpur, Rajasthan**  
May 2023 - Aug 2023

- Created a Bangla newspaper dataset and added bounding boxes to the images using OCR.
- Utilized a vision transformer on the dataset and cascaded it with ocr and text to text transformer.
- Extracted VQA information, leveraging generative pre-training techniques to understand Indian language documents.
- Developing a unified text, vision, and layout for a universal document processing(UDOP) model.

## PROJECTS

**Speech Emotion Recognition**   
Course Project | Machine Learning and Pattern Recognition | Guide: Prof. Richa Singh

April'23- May'23

- Developed an emotion detection model for classifying eight distinct human emotions within input audio signals.
- Implemented and trained ANNs with sigmoid activation functions to achieve 97
- Trained svm models on Mel Spectrogram and Fourier Transform Dataset, achieving a precision of 0.972 and 0.954.

**Youtube Comment Classification**   
Course Project | Machine Learning and Pattern Recognition | Guide: Prof. Richa Singh

March'23-April'23

- Build a machine-learning model to cluster comments from diverse Youtube content creators to identify spam comments.
- Applied agglomerative, k-means, and spectral clustering to distinguishing between spam and genuine content.
- Achieved a calinski-harabasz score of 190 and a silhouette Score of 0.7 with the spectral clustering using RBF kernel.

**VidVerse**   
Course Project | Data Enginnering | Guide: Prof. Saptarshi Pyne

Sept'23 - Nov'23

- Designed a YouTube like website with the help of Django(Backend)and Html/Css, React (Frontend).
- Used MySQL, MongoDB and Neo4j as the database management system
- Built a recommendation system by modelling the relationships between videos.

## COMPETITIONS AND CHALLENGES

**Fastest-Coder-Hackathon**   
Microsoft Azure

Jun'23

- Developed a weather Forecasting tool using API for displaying real-time weather forecasts in designated cities.
- Displayed API integration, adept data parsing, and robust error handling for weather data.
- Illustrated expertise in OpenWeatherMap API integration, data management, and accuracy assurance for weather data.

## TECHNICAL SKILLS

**Programming languages:** C++, Python  
**ML/AI:** Pytorch, Numpy, Pandas, Matplotlib, Sklearn

**Web Technologies:** HTML, CSS, Django, JavaScript, React  
**Miscellaneous:** MySQL, Neo4j, Git, Github, Latex

## RELEVANT COURSEWORK

**Artificial Intelligence:** Pattern Recognition and Machine Learning, Optimization for Machine Learning, Data Engineering  
**Computer Science:** Design & Analysis of Algorithms, Computer Architecture, Operating System, Computer Networks  
**Mathematics:** Linear Algebra, Probability and Statistics, Calculus, Differential Equations, Discrete Mathematics

## POSITIONS OF RESPONSIBILITY

- **Vice Captain** ,Athletics Society, IIT Jodhpur 2021 - Present
- **Senior Executive** ,E-Cell, IIT Jodhpur 2022 - 2023
- **Assistant Head** ,Ignus Culture Fest, IIT Jodhpur 2023

## ACHIEVEMENTS

- **Gold medal** ,in athletics middle distance events at the IIT Jodhpur Sports Fest Varchas.
- **Gold Medal** ,in 10km Mini Marathon held by Raptors Aviation Brigade of Indian Army as part of “Azadi ka Amrit Mahotsav.”