## **Reyan Alam**

Education \_\_\_\_\_

Indian Institute of Technology (IIT), Patna

B.Tech

**Educational Discourse** 

Preparing for UPSC,CSE

Aug 2018 – May 2022

Aug 2022 - May 2024

**Projects** 

ChatBot Source Code 

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• Developed a Retrieval-Augmented Generation (RAG) chatbot that efficiently generates responses to user queries and is trained on a knowledge base.

- Cleaned, preprocessed, and converted data to vector embeddings for efficient similarity search.
- Stored and managed embeddings in Pinecone, enabling high-performance vector search and retrieval.
- Retrieved relevant data from Pinecone to provide context for OpenAI LLM, enhancing response accuracy and relevance.
- Tools Used: Python,langchain, pinecone, openai, Streamlit, Pandas, and NumPy.

## **Student Score Prediction Model**

Source Code 🗹

- Developed a machine learning model trained on a dataset to predict student score based on various factors such as gender, ethnicity, parental education, etc.
- Created a web application using Streamlit that takes user input for various features and predicts student scores.
- Tools Used: Python, Streamlit, Scikit-learn models, Scikit-learn preprocessing, Scikit-learn model evaluations, Scikit-learn utilities, Pandas, and NumPy.

## Skills \_\_\_\_\_

**Programming Languages: Python** 

Libraries & Tools: NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, langchain, openai

Machine Learning: Supervised and Unsupervised Learning

Natural Language Processing: Text Preprocessing, Tokenization, Embeddings, Sentiment Analysis, Text Classification

**GenerativeAI:** Vectore Database Management such as Pinecone

Data Analysis: Exploratory Data Analysis (EDA), Data Cleaning, Feature Engineering

Model Evaluation & Tuning: Cross-Validation, Hyperparameter Tuning

Data Visualization: Data storytelling, Creating insights using Matplotlib, Seaborn, Plotly

Version Control: Git, GitHub

## Achievements

- Cleared UPSC Prelims 2023.
- Ranked among the top 1% out of 1,000,000 candidates in JEE Advanced 2018.
- Secured AIR 723 in WBJEE, out of more than 100,000 candidates.
- Successfully cleared **JEE Mains** in **2017** and **2018**, as well as **COMEDK UG 2018**.