ML Text classification App

I have created a web based machine learning application built using Streamlit for classifying text. It detects if text is written by an AI or a human. It can do single prediction, batch processing, and model comparison. This was done using pretrained models like Support Vector Machine (SVM), Decision Tree, and AdaBoost.

Features

- Single Prediction: input text and get predictions with confidence.
- Batch Processing: Upload files and process.
- Model Comparision: Compare how different models classify the same text.
- Model Info: View details about the models and features.
- Help Guide: Help and troubleshooting instructions.

Project structure

- Streamlit_ml_app
    o AI_vs_Human_detection_project
        ▪ App.py
        ▪ reqirements.txt
        ▪ models
            • AI_vs_Human_analyzer_pipeline.pkl
            • tfidf_vectorizer.pkl
            • svm_model.pkl
            • tree_model.pkl
            • ada_model.pkl
        ▪ data
            • AI_vs_human_train_dataset.xlsx
            • Final_test_data.csv
        ▪ README.md

(In command prompt with proper directory for the project folder)

Required:
- Python –version
- Pip

Cloning the repository (not yet uploaded up Github)

Create virtual environment:

- Use "python -m venv [name environment]" to create virtual environment
- Then use "source venv/bin/activate" to activate environment on Mac and "venv\Scripts\activate" on Windows.

Install dependencies:

- Use "pip install -r requirements.txt" to install dependencies.

Run the App:

- Use "streamlit run App.py" to run the web application on a localhost.