WEEK 8 REPORT

Group Name:

	Member 1	Member 2
Name	Keilor Fallas Prado	Ky Dang
Email	kfallasprado@gmail.com	Keith.dang1610@gmail.com
Country	Costa Rica	Vietnam
College/ Company		
Specialization	NLP	NLP

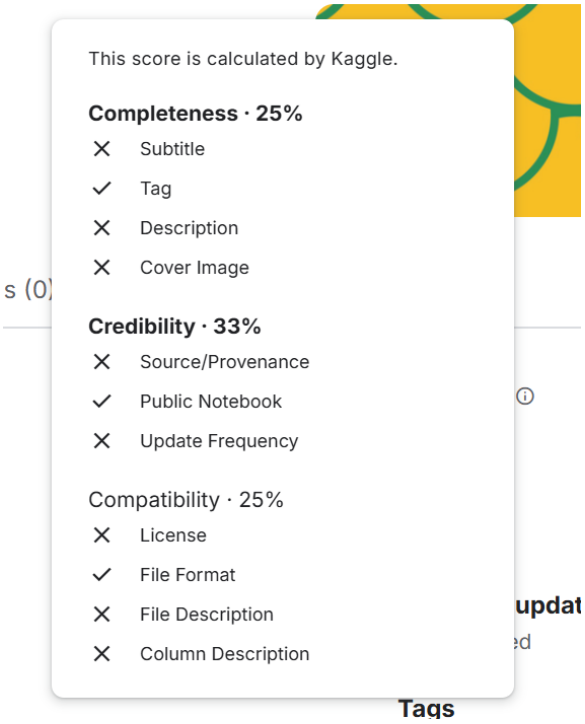
Problem description:

Hate speech is a form of communication, whether verbal, written, or behavioral, that attacks or discriminates against an individual or group based on their inherent characteristics, such as religion, ethnicity, nationality, race, gender, or other identity factors. The emergence of hate speech on social media platforms like Twitter poses significant challenges, including creating a toxic environment for users and impacting the platform's reputation.

To address this issue, the goal is to develop a machine learning-based hate speech detection model. This model will classify tweets as hate speech or not, using sentiment classification techniques. By leveraging a dataset of tweets commonly used for sentiment analysis, the model will learn to identify patterns associated with hate speech. This project combines data preprocessing, feature extraction, and machine learning to build an effective classifier capable of addressing the problem of online hate speech in a scalable and automated way.

Data understanding:

Due to the dataset was collected from the twitter, it’s outdated, and the usability score is quite low 2.94.
- The data was collected six years ago and has not been regularly updated, rendering it obsolete.



The dataset has two subdatasets: train (31962 records) and test (17197 records). The train dataset includes: 3 columns (id, label, tweets).

I identified inconsistencies in the train dataset where the labels 0 and 1 do not align with the content of the tweets. For instance, tweets that are likely hate speech are labeled as 0, and vice versa

Project lifecycle

Weeks	**Due date**	**Plan**
Week 8	11/26/2024	Review data source and ensure it is representative of hate speech contexts.
Week 9	12/02/2024	Remove duplicates, nulls, and irrelevant data.
Week 10	12/09/2024	Evaluate and select models such as Logistic Regression, SVM, or Transformers (e.g., BERT).
Week 11	12/16/2024	Tokenization - Identify relevant linguistic and contextual features
Week 12	12/23/2024	Training and evaluation model
Week 13	12/30/2024	Document the challenge

Github Repo link:

- Individual GitHub links:

- KyDang: https://github.com/KeithDang1610/NLP_HateSpeech-Detection
- Keilor: