Project Overview

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**Implement BERT Transformer.py**: Fine tune the BERT model (bert-base-uncased) on the processed imdb dataset

**Evaluate BERT performace metrics.py**: Evaluate the BERT model performance.

**Load\_data.py & Data\_preprocessing.py**: Scripts to load and preprocess data before further steps

**BERT Feature Extraction.py & BERT Feature Extraction with Memory Profiling and Garbage Collector.py**: Scripts to extract BERT Features from processed text. The latter has some modifications for handling the memory.

**Analyze bert features for sentiment.py**: Script to calculate the counts of data points falling into each interval for both positive and negative sentiment.

**BERT\_and\_Fuzzy\_System\_Implementation.py**: Script to implement the Fuzzy Logic System with the BERT model and its extracted features.

**Executable\_script.py**: Script to visualize the input text from the user with the sentiment as output. Calls the **BERT\_and\_Fuzzy\_System\_Implementation.py** script.

This was a high overview of the project till now. The fuzzy logic system gives good and promising results. But more modifications are needed. Also, the implementation of a Genetic Algorithm (Evolutionary Algorithms) is at my TO-DO list to better improve the performance of my three mechanism emotion detection project.