IJARSCT



International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal



Volume 5, Issue 5, April 2025

Text Based Emotion Recognition: Exploring NLP and Machine Learning

Hauwa Walida Abubakar, Abubakar Amina, Asiyatu Muhammad, Dr Aditya Dayal Tyagi Undergraduate, Sharda School of Engineering and Technology, Sharda University, Greater Noida, India 2022834969.hauwawalida@ug.sharda.ac.in and adityadayaltyagi@gmail.com

Abstract: Emotion detection from text is a significant task in the field of natural language processing (NLP), empowering machines to comprehend and react to human emotional expressions. In this research, we focus on methods to obtain accurate and robust emotion attention mechanisms from text in different scenarios. This proposed work is carried out to develop a system which can identify emotions from text data. Possibilities are endless in aligning emotion detection with various applications such as sentiment analysis, mental health analysis, virtual assistants, and customer care. The system will read written text to identify emotions — joy, sadness, anger, fear, surprise, neutral, and others. This is a broad classification of emotion detection from text in different domains. Traditional sentiment analysis classifies sentiments as positive, negative, or neutral. But emotion detection takes this one step further by identifying specific emotional states expressed by a speaker or writer

Keywords: Emotion Recognition, Natural language processing(NLP), Keyword based detection, Sentiment analysis, DistilBERT

