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The main motivation of emotion detection lies in its significant impact on the medical field to analyze stress, anxiety and depression disorder, neuroimaging system, HCI and related application. (EEG) one of key physiological signals, which measures directly by electrodes placed on the scalp from the central nervous system (CNS), intricately linked to human being feelings. This paper provides an in depth investigation of different extraction method, pre-processing, data acquisition, feature selection, emotion induction, summarizing the model used in the majority of related study and highlighting the deep models which piques researchers' curiosity. This paper provides an overview of the current issue, emerging research pathways of emotion detection based on physiological signals like EEG, the present difficulty and emotion evolution. The main intention is to assist researchers, especially beginners, to have a thorough understanding of emotion research in this field of artificial intelligence.

34. EMOTIBERT: SENTIMENTAL ANALYSIS FOR REVIEW SENTIMENT ANALYSIS OF CUSTOMER REVIEWS FOR ACCURATE PERCEPTION PREDICTION

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This study introduces an innovative sentiment analysis framework for textual reviews by utilizing the Bidirectional Encoder Representations from Transformers (BERT) model in combination with a customized syntax-aware BERT variant. Both models are optimized using the AdamW algorithm to achieve faster convergence and better generalization. Furthermore, the integration of the spaCy dependency parser enriches syntactic comprehension, thereby enhancing sentiment classification performance. Experimental evaluation on standard benchmark datasets reveals that the proposed syntax-enhanced BERT significantly surpasses the baseline BERT model in terms of precision, recall, and F1-score, confirming the advantage of incorporating syntactic features into transformer-based sentiment analysis systems.

35. EXPLAINABLE AI (XAI) FOR HIGH-STAKES DECISION MAKING: DATA SCIENCE TECHNIQUES AND APPLICATIONS

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