

Sentiment Analysis using Deep Learning

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Abstract: "Sentiment analysis is a process that involves identifying and analyzing human emotions, including joy, love, surprise, sadness, fear, and anger. These emotions play a vital role in our daily activities, including decision-making, learning, inspiration, and thinking. With the use of sentiment analysis, machines can understand human behavior, which can be utilized to improve business requirements and customer satisfaction. This study proposes a sentiment analyzer system that utilizes facial landmark detection and feature extraction to capture real-time facial images and analyze the emotions expressed in the images. Facial landmark detection is a critical step in the proposed system as it accurately identifies specific regions of the face, including the eyes, nose, and mouth, which are essential in analyzing facial expressions. The proposed system was evaluated using a dataset of facial images with labeled emotions, and the experimental results demonstrated that the system achieved high accuracy in identifying human emotions from facial images. The system's performance was compared to several state-of-the-art methods, and it outperformed these methods in terms of accuracy and efficiency. The proposed sentiment analyzer system has broad applications in various fields, including marketing, healthcare, education, and social media analysis. This study provides insights into how facial landmark detection and feature extraction can be utilized to analyze human emotions, which can ultimately improve customer satisfaction and enhance business decision-making."

Keywords: Sentiment analysis, Emotion detection, Facial landmark detection, Feature extraction, Human behavior, Decision-making, Machine learning, Artificial intelligence, Facial expressions, Marketing, Healthcare, Education, Social media analysis, Accuracy, deep learning, Raspberry pi..

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