Rajalakshmi Engineering College

Department of Artificial Intelligence & Machine Learning

III Year (2025 – 2026) - AI23521: Build and Deployment of ML app

Mini Project - Abstract

Title	Youtube comment sentiment Analysis	
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Youtube comment sentiment Analysis

ABSTRACT :

With the rapid growth of user interaction on platforms like YouTube, understanding the sentiment behind comments has become essential for content creators, marketers, and researchers. This project, YouTube Comment Sentiment Analysis, aims to classify user comments as positive, negative, or neutral, while providing a quantitative sentiment score ranging from 0 to 1 based on the words, emojis, and context used in the comment. The system accepts a user-provided comment in a text input interface, preprocesses the text by removing noise, normalizing words, and handling special characters and emojis, and then applies Natural Language Processing (NLP) techniques for feature extraction. Using methods like TF-IDF and word embeddings, the text is transformed into a numerical representation suitable for sentiment prediction. Machine learning models such as Logistic Regression, Random Forest, and Support Vector Machines (SVM) are trained to predict sentiment and generate a confidence score that reflects the intensity of the sentiment expressed. The analysis provides both a categorical sentiment label and a numeric score, giving a nuanced view of the comment's tone. This approach helps users, creators, and businesses gain deeper insights into audience feedback, engagement patterns, and content reception.

SUPERVISOR **REVIEWER**