# SOCIAL MEDIA ANALYTICS

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# IMDB Review Sentimental Analysis and Prediction

1. "Sentiment Analysis of Movie Reviews:

A Comparative Study of Supervised Learning Algorithms" by S. Singh and S. Singh. In this paper, the authors compare the performance of various supervised learning algorithms on a dataset of movie reviews from IMDB. They evaluate the algorithms using metrics such as accuracy, precision, recall, and F1 score, and identify the most effective algorithm for sentiment analysis of movie reviews

2. "Sentiment Analysis of Movie Reviews Using Machine Learning Techniques" by H. P. Singh et al. This paper explores the use of machine learning techniques such as SVM and Naive Bayes for sentiment analysis of movie reviews. The authors evaluate the performance of these techniques on a dataset of 2000 movie reviews from IMDB and achieve an accuracy of over 80%.

3. "A Comparative Study of Deep Learning Techniques for Sentiment Analysis of Movie Reviews" by S. Kumar and S. Pachauri. In this paper, the authors compare the performance of various deep learning techniques such as Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), and Long Short-Term Memory (LSTM) for sentiment analysis of movie reviews. They achieve an accuracy of over 90% using these techniques.

4. "Sentiment Analysis of Movie Reviews using Natural Language Processing Techniques" by V. Singh and N. Singh. This paper explores the use of natural language processing (NLP) techniques such as Part-of-Speech (POS) tagging, stemming, and sentiment lexicons for sentiment analysis of movie reviews. The authors achieve an accuracy of over 80% using these techniques on a dataset of movie reviews from IMDB.

5. "Aspect-Based Sentiment Analysis of Movie Reviews: A Survey" by P. B. Chitturi and K. S. Rao. In this paper, the authors provide a comprehensive survey of aspectbased sentiment analysis of movie reviews. They review the existing literature on this topic and identify the challenges and opportunities in this area.

6. "Sentiment Analysis of Movie Reviews Using Deep Learning and Transfer Learning" by A. Singh et al. This paper explores the use of deep learning and transfer learning techniques for sentiment analysis of movie reviews. The authors use a pretrained language model and fine-tune it on a dataset of movie reviews from IMDB. They achieve an accuracy of over 90% using this approach.

### **NOVELTY**

- Used BERT model for prediction. The input to the encoder for BERT is a sequence of tokens, which are first converted into vectors and then processed in the neural network.
- What makes this project difficult is that the sequences can vary in length, be comprised of a very large vocabulary of input symbols and may require the model to learn the long-term context or dependencies between symbols in the input sequence. So, we build LSTM model for predicting sentimental class.

# **CONTRIBUTIONS**

 NIRANJAN - Data Collection, Data preprocessing, Data Analysis, Report and PPT

• ALAGARSAMY - Data Analysis, NLP, Visualization, Model Building and Evaluation

# **GitHub Link**

<u>Link</u> of the project code which is uploaded in github.

## **CHECKLIST**

- 2nd Review Done
- Report Submission Done
- Demo Done
- Uploaded in GitHub Done