Vardhaman College of Engineering

Autonomous Institute, affiliated to JNTUH

Engineering Projects in Community Service

Product Realization (A5017)

CSE -A

Team No. 08

PREDICTION USING SENTIMENT ANALYSIS WITH RNN

Abstract:

Sentiment analysis is the process of extracting and identifying subjective information in source materials using natural language processing, text analysis, and computational linguistics. Its goal is to determine a speaker's or writer's attitude toward a topic or a document's overall contextual polarity. His or her attitude could be one of judgement or evaluation. State of mind (that is to say, the emotional state of the author when writing). The emotional communication that is intended (that is to say, the emotional effect the author wishes to have on the reader). The rise of social media such as blogs and social networks in the last decade has fueled interest in sentiment analysis. Online opinion has evolved into a virtual reality. The emotional communication that is intended (that is to say, the emotional effect the author wishes to have on the reader). The rise of social media such as blogs and social networks in the last decade has fueled interest in sentiment analysis. With the proliferation of reviews, ratings, recommendations, and other forms of online expression, online opinion has become a virtual currency for businesses looking to market their products, identify new opportunities, and manage their reputations. Many people are turning to sentiment analysis to help them automate the process of filtering out noise, understanding conversations, identifying relevant content, and taking appropriate actions. The problem with most sentiment analysis algorithms is that they express sentiment about a product or service in simple terms. Cultural factors, sentence negation, sarcasm, terseness, language ambiguity, and different contexts, on the other hand, make it extremely difficult to turn a string of written text into a simple pro or con sentiment.

Team Members:

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Product Details

Need Statement:

1. If the data is in the form of a tone, then it becomes really difficult to detect whether the comment is pessimist or optimist.
2. If the data is in the form of emoji, then you need to detect whether it is good or bad.
3. Even the ironic, sarcastic, comparing comments detection is really hard.
4. Comparing a neutral statement is a big task.
5. We can take the decision whether the reviews are positive or negative and helps in decision making to improve the business.

Community Partner Feedback and a Pic with community partner:

- ✓ Our project's concept and goals were well received.
- ✓ Recognized all partners' abilities and contributions.

Cost Analysis:

✓ Design: 300

✓ Development: 699

Cost of Product/Process: Rs. 999/-

Picture of Product:

```
prediction = model.predict(padded)
pred_labels = []
for i in prediction:
    if i >= 0.5:
        pred_labels.append(1)
    else:
        pred_labels.append(0)
for i in range(len(sentence)):
    print(sentence[i])
    if pred_labels[i] == 1:
        s = 'Positive'
    else:
        s = 'Negative'
    print("Predicted sentiment : ",s)
```

```
The movie was very touching and heart whelming
Predicted sentiment :  Positive
the movie plot is terrible but it had good acting
Predicted sentiment :  Positive
```

```
[30] print("Accuracy of prediction on test set :",accuracy)

Accuracy of prediction on test set : 0.8554
```

Faculty Mentor:
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