

Sentiment Analysis Report

Summary

Amazon Product Reviews Sentiment Analysis Report

Description of the Dataset:

The dataset consists of consumer reviews of Amazon products. Each review is represented by a column 'reviews.text', which contains the text of the review.

Preprocessing Steps:

1. Loaded the dataset and selected the 'reviews.text' column.
2. Removed missing values.
3. Preprocessed the text data by removing stopwords and punctuation, and lemmatizing the tokens.

Evaluation of Results:

The sentiment analysis function was tested on sample product reviews. The model classified the sentiment of each review as positive, negative, or neutral based on the sentiment score.

Insights:

The model performed reasonably well on the sample reviews. However, the accuracy of the sentiment analysis can be improved by fine-tuning the model and using a more sophisticated sentiment analysis approach. The current model may struggle with detecting nuanced sentiments or handling complex sentences.

Strengths:

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- Simple and quick preprocessing steps.
- Easy to understand and implement sentiment analysis.

Limitations:

- Limited accuracy due to the basic sentiment analysis model.
- May not handle complex sentences and nuanced sentiments well.

Sample Reviews Analysis:

Review 1:

- Text: This product is excellent! It exceeded my expectations.
- Sentiment: positive
- Polarity Score: 1.0

Review 2:

- Text: I am very disappointed with this product. It broke after one use.
- Sentiment: negative
- Polarity Score: -0.75

Review 3:

- Text: It's okay, not great but not terrible either.
- Sentiment: positive
- Polarity Score: 0.10000000000000002

Similarity Score between Review 1 and Review 2: 0.6997778520954879