

A DEEP LEARNING BASED ENSEMBLE APPROACH FOR SARCASM DETECTION IN TWEETS

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Abstract

“Sarcasm” is a type of figurative language speech. It conveys the exact opposite meaning of its literal definition. Humans are capable of detecting sarcasm of a text with the help of context, general knowledge of the subject the text discusses and the tone. However for machines detection of sarcasm could be a quite difficult task.

Sentiment analysis refers to the process detecting the underlying emotional tone behind a text such as positive, negative or neutral. Sentiment analysis is widely used in customer care and marketing by analyzing public opinion data in order to optimize a commercial product or service. Sarcasm in this public opinion datasets could affect the overall outcome of the sentiment analysis is not properly handled.

The system proposed in this research is able to detect sarcastic text within a given public opinion dataset collected from Twitter platform and clean that dataset from sarcastic text. This tool could be introduced as a novel tool for the domain of sentiment analysis. The technical approach for this project is to use deep learning based ensemble learning for the process of sarcasm detection.

Keywords: Sarcasm, Figurative Language, Deep learning, Ensemble Learning , Sentiment Analysis

Subject Descriptors:

Computing methodologies → Machine learning → Machine learning algorithms → Ensemble methods

Information systems → Information systems applications → Decision support systems → Online analytical processing