

Progress Report

Team:

Salty Fish

Members:

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Task: Text Classification Competition (Sarcasm Detection)

1) Which tasks have been completed?

1. We have surveyed **related background knowledge and previous researches** about the sarcasm detection task and sentiment analysis.
2. We have implemented the **code to process the tweet data**.
3. We have a quick implementation on our **basic LSTM model** with Pytorch. The network architecture of this model includes one LSTM layers and two dense layers. We only use the response data to train the model. We currently achieve **(Precision: 0.61 Recall:0.67 F1: 0.64)** on the testset.

2) Which tasks are pending?

1. We are trying to develop a more complex framework which can help **make use of the context data**.
2. We try to make use of some **popular network architectures** which were proved to be effective on the sentiment analysis task.
3. Final **hyper-parameter adjusting and model ensemble**.

3) Are you facing any challenges?

1. The most challenge part is **how to make use of the context data** provided in the dataset. Every piece of tweet in the dataset is a reply to another tweet. However, sometimes they agree with each other while sometimes they are not.

2. **Overfitting**. Our basic model performs much better on the trainset than the testset. We have tried using regularization and reducing the parameters but the improvement is limited.