**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.