

Project Progress Report

Project Topic: BERT Sentiment Analysis to Detect Twitter Sarcasm

Project Team Member

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Result (answer.txt)

- **Progress status: 100%** (Completed)
- The project scores (beating the baseline):

	F1-Score	Recall	Precision
Project Result	0.757905138339921	0.8522222222222222	0.6823843416370107
Baseline	0.723	0.723	0.723

Software Code

- **Progress status: 100%** (Completed)
- Source code files:
 - Training and Evaluation ([link](#))
 - Evaluation (for DEMO) ([link](#))

Documentation

- **Progress status: 100%** (Completed)
- The document files:
 - Proposal ([link](#))
 - Project Documentation ([link](#))

Demo Video

- **Progress status: 100%** (Completed)
- Demo video URL: <https://www.youtube.com/watch?v=PsYn2lUWpQg>

Challenges in The Project

- To train and evaluate the BERT model requires computing power: a fast CPU and a large RAM size. It needs a dedicated environment such as Google Colab. To train the large models in my experiments, it requires a Google Colab PRO, which is the paid version.
- It is not easy to predict the results of the experiments since BERT is one of the Deep Learning algorithms that involves many hidden parameters. We can easily overfit the model with the given parameters and text inputs. There is no easy way to explain why one parameter performs better than the other parameter.
- Selecting a feature from the tweet to identify the sentiment is one of the most challenging parts of the project.