A6 Report

M124020042 賴壹誠

Task 1:

Using learning rate 1e-5

First I imply “bert-base-uncased” for tokenizer and modelForSequenceClassification. It has acc 0.84.

Next I imply RobertaTokenizer and RobertaForSequenceClassification. It has acc 0.86, which is higher than bert-base.

Task 2:

#zero-shot

        self.prefix = 'It was [MASK] sentence' # you can modify this line

#one-shot

        self.prefix = ('It was good sentence. @united Thank you! Off to LA to do something very special.'

                'It was [MASK] sentence.')

#few-shot

        self.prefix = ('It was good sentence. @united Thank you! Off to LA to do something very special.'

                'It was neutral sentence. @JetBlue I would fly somewhere hotter then here. Puerto Rico here I come. Lol'

                "It was bad sentence. @united No. SATO rebooked me. Just upset that my travel office had to fix this, and you couldn't."

                'It was [MASK] sentence.')

        self.verbalizer = {

            'good': 2,

            'neutral': 1,

            'bad': 0

        }

After trying zero-shot, one-shot, and few-shot, below is the results:

#zero-shot

[100 %] Time elapsed: 00:01:59 | ETA: 00:00:00accuracy: 0.314598 | precision: 0.543655 | recall: 0.314598 | f1: 0.296825

#one-shot

[100 %] Time elapsed: 00:01:58 | ETA: 00:00:00accuracy: 0.161397 | precision: 0.026049 | recall: 0.161397 | f1: 0.044858

#few-shot

[100 %] Time elapsed: 00:02:06 | ETA: 00:00:00accuracy: 0.266686 | precision: 0.593466 | recall: 0.266686 | f1: 0.230853

Task 3:

By implying three manual templates:

template = ManualTemplate(tokenizer=tokenizer, text='{"placeholder":"text\_a"} It was {"mask"}.')

template = ManualTemplate(tokenizer=tokenizer, text='{"placeholder":"text\_a"} It was {"mask"} sentence.')

template = ManualTemplate(tokenizer=tokenizer, text='{"placeholder":"text\_a"} This is {"mask"}')

It was {"mask"} got 0.82

It was {"mask"} sentence. got 0.83

This is {"mask"} got 0.86

Auto template got 0.91

So auto template performs better