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# PRML Final PJ

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Mengyi Chen  
CS  
ID: 19307110382  
19307110382@fudan.edu.cn

## Abstract

This assignment completed a simple NLI task using ESIM.

## 1 Introduction

In this assignment, an ESIM model is used to complete the NLI task. The dataset used in this task is the Original Chinese Natural Language Inference (OCNLI) dataset. The accuracy of the model on test set is 0.340.

## 2 Dataset

The dataset used in the task is OCNLI. There are 45437 training samples, 2950 validation samples and 5000 test samples in the dataset. Labels include 'entailment', 'neutral' and 'contradiction'. Each sample consists of two sentences and a label.

## 3 Methodology

The ESIM model can be divided into 3 main layers. The first layer use BiLSTM to re-encode every word vector of the sentence. The second layer use Attention to extract the relationship between premise and hypothesis, then reconstruct. The third layer put reconstructed premise and hypothesis into a BiLSTM layer then output the result.

## 4 Results

The ESIM model implemented in this task achieved an accuracy of 0.340 and a loss of 180.162 on the test set.

## 5 Conclusion

In this task, most effort are spent in making the model output a result successfully. Due to limited time and ability, the test accuracy is low and the second part of this assignment is left undone. Sincerely apologize for that.