DeepClassifier

Release 0.0.1

Zichao Li

Feb 15, 2021

CONTENTS:

DeepClassifier is a python package based on pytorch, which is easy-use and general for text classification task.

CHAPTER

ONE

QUICKSTART

I will show you that how to install DeepClassifier.

installation

The command of installation is below:

```
pip install -u deepclassifier
```

So let's start!

CHAPTER

TWO

MODELS

I will show you that the pramamters of models.

2.1 deepclassifier.models.TextCNN

I will show you that the parameters of TextCNN model.

```
class TextCNN(self,embedding_dim,dropout_rate,
       num_class,vocab_size=0,seq_length=0,
       num_layers=3,kernel_sizes=[3, 4, 5],
       strides=[1, 1, 1],paddings=[0, 0, 0],
       num_filters=[100, 100, 100],
       embedding_matrix=None,
       requires_grads=False):
```

Initialize TextCNN model.

Important: We strongly recommand you to use pre-trained embedding such as GloVe.

Parameters:

- embedding_dim: embedding dim
- dropout_rate: drouput rate
- num_class: the number of label
- vocab_size: vocabulary size
- seq_length: max length of sequence after padding
- num_layers: the number of cnn
- kernel_sizes: list of conv kernel size
- strides: list of conv strides
- paddings: list of padding
- num_filters: list of num filters
- embedding_matrix: pretrained embedding look-up table,shape is:[vocab_size,embedding_dim]
- requires_grads: whether to update gradient of embedding in training

```
forward(self, input_ids)
```

Parameters:

- input_ids: [batch_size,seq_length]

Reference

```
@inproceedings{kim-2014-convolutional,
   title = "Convolutional Neural Networks for Sentence Classification",
   author = "Kim, Yoon",
   booktitle = "Proceedings of the 2014 Conference on Empirical Methods in Natural␣
↪Language Processing ({EMNLP})",
   month = oct,
   year = "2014",
   address = "Doha, Qatar",
   publisher = "Association for Computational Linguistics",
   url = "https://www.aclweb.org/anthology/D14-1181",
   doi = "10.3115/v1/D14-1181",
   pages = "1746--1751",
```

}

2.2 deepclassifier.models.RCNN

I will show you that the parameters of RCNN model.

2.3 deepclassifier.models.DPCNN

I will show you that the parameters of DPCNN model.

2.4 deepclassifier.models.HAN

I will show you that the parameters of HAN model.

2.5 deepclassifier.models.BertTextCNN

I will show you that the parameters of BertTextCNN model.

2.6 deepclassifier.models.BertRCNN

I will show you that the parameters of BertRCNN model.

2.7 deepclassifier.models.BertDPCNN

I will show you that the parameters of BertDPCNN model.

2.8 deepclassifier.models.BertHAN

I will show you that the parameters of BertHAN model.