

GCAE 实验总结

1. 数据集

杜老师给出的数据集为：ABS-15-16\acsa-laptop-2016，其数据类型为 csv 类型文件，其中含有三个文件，，依次是：

- acsa-laptop-2015
 - train, 共1972个数据项
 - test, 共948个数据项
- acsa-laptop-2016
 - train, 共2906个数据项
 - test, 共799个数据项
- acsa-restaurant-2015
 - train, 共1478个数据项
 - test, 共775个数据项
- acsa-restaurant-2016
 - train, 共2258个数据项
 - test, 共743个数据项

这三个文件中含有相同的三个属性：

- sentence
- aspect
- polarity: 有 positive、negative、neural 三类属性

对数据集做的操作：

- 对多次出现的"，进行转义处理

2. 实验结果

2.1 acsa-laptop-2015

共进行了三次实验，结果分别是：

- 准确率：72.0000%

```
/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[90] - loss: 0.232839 acc: 90.0000%(116/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))
72.0000 - 72.0000 - 17.3517
```

- 准确率：66.0000%

```

/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[90] - loss: 0.243858 acc: 92.0000%(119/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))
66.0000 - 66.0000 - 17.6659

```

- 准确率:

```

/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[90] - loss: 0.172735 acc: 93.0000%(120/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))
71.0000 - 71.0000 - 16.2596

```

2.2 acsa-laptop-2016

共进行三次实验，结果分别是：

- 准确率：71.0000%

```

/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[130] - loss: 0.201017 acc: 93.0000%(120/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))
71.0000 - 71.0000 - 21.5160

```

- 准确率：73.0000%

```

/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[130] - loss: 0.219090 acc: 90.0000%(116/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))
73.0000 - 73.0000 - 21.0479

```

- 准确率：72.0000%

```

/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[130] - loss: 0.278337 acc: 91.0000%(117/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))
72.0000 - 72.0000 - 21.9720

```

2.3 acsa-restaurant-2015

共进行三次实验，结果分别是：

- 准确率：61.0000%

```

/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[70] - loss: 0.191888 acc: 90.0000%(116/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))
61.0000 - 61.0000 - 11.4111

```

- 准确率: 64.0000%

```
/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[70] - loss: 0.228221 acc: 91.0000%(117/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))

64.0000 - 64.0000 - 16.6569
```

- 准确率: 65.0000%

```
/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[70] - loss: 0.207554 acc: 92.0000%(119/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))

65.0000 - 65.0000 - 12.3790
```

2.4 acsa-restaurant-2016

共进行三次实验, 结果分别是:

- 准确率: 75.0000%

```
/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[100] - loss: 0.275088 acc: 89.0000%(114/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))

75.0000 - 75.0000 - 17.4547
```

- 准确率: 76.0000%

```
/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[100] - loss: 0.204718 acc: 91.0000%(117/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))

76.0000 - 76.0000 - 17.8867
```

- 准确率: 76.0000%

```
/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/functional.py:1320: UserWarning: nn.functional.tanh
is deprecated. Use torch.tanh instead.
  warnings.warn("nn.functional.tanh is deprecated. Use torch.tanh instead.")
Batch[100] - loss: 0.185712 acc: 93.0000%(120/128)/home/lab/anaconda3/envs/nsvqa/lib/python3.6/site-packages/torch/nn/_r
eduction.py:49: UserWarning: size_average and reduce args will be deprecated, please use reduction='sum' instead.
  warnings.warn(warning.format(ret))

76.0000 - 76.0000 - 18.4589
```