NLP HW2 Report

April 10, 2018

1 Homework 2 of NLP for Deeplearning

1.1

0.61812

1.1.1 batch_size

 validation_split

```
In [ ]: # 0.70226
        epochs = 100, validation_split = 0.2, batch_size = 10, verbose = 1
        batch_size=10, verbose=0

        # 0.69902
        epochs = 100, validation_split = 0.5, batch_size = 10, verbose = 1
        batch_size=10, verbose=0

        # 0.71521
        epochs = 100, validation_split = 0.35, batch_size = 10, verbose = 1
        batch_size=10, verbose=0
        0.71521

        # 0.72491
        epochs = 100, validation_split = 0.275, batch_size = 10, verbose = 1
        batch_size=10, verbose=0
```

1.1.2 batch_size

batch_size 5

```
In [ ]: # 0.73139
        epochs = 100, validation_split = 0.275, batch_size = 5, verbose = 1
        batch_size=5, verbose=0

        # 0.68284
        epochs = 100, validation_split = 0.275, batch_size = 4, verbose = 1
        batch_size=4, verbose=0
```

```
# 0.68932
epochs = 100, validation_split = 0.275, batch_size = 2, verbose = 1
batch_size=2, verbose=0
```

1.1.3 if value[0] > 0.4

0.5

```
In [ ]: # 0.72815
        epochs = 500, validation_split = 0.05, batch_size = 2, verbose = 1
        batch_size=2, verbose=0
        if value[0] > 0.7:


        # 0.67637
        epochs = 500, validation_split = 0.05, batch_size = 2, verbose = 1
        batch_size=2, verbose=0
        if value[0] > 0.4:
```

Kaggle 0.73786 ,

1.2 boat

boat boat

```
In [ ]: # 0.91909
        model.fit(x = train_result, y = train_label, epochs = 200, validation_split = 0.275, bat
        scores = model.evaluate(x = train_result, y = train_label, batch_size=5)
        res = model.predict(test_feature, batch_size=5, verbose=0)
```

1.2.1 validation_split

validation_split train ,

```
In [ ]: # 0.93527
        model.fit(x = train_result, y = train_label, epochs = 200, validation_split = 0.175, bat
        scores = model.evaluate(x = train_result, y = train_label, batch_size=5)
        res = model.predict(test_feature, batch_size=5, verbose=0)

        # 0.92233
        model.fit(x = train_result, y = train_label, epochs = 200, validation_split = 0.1, batch
        scores = model.evaluate(x = train_result, y = train_label, batch_size=5)
        res = model.predict(test_feature, batch_size=5, verbose=0)
```

1.2.2

5000500

```
In [ ]: # 0.94822
        model.fit(x = train_result, y = train_label, epochs = 500, validation_split = 0.1, batch
        scores = model.evaluate(x = train_result, y = train_label, batch_size=5)
        res = model.predict(test_feature, batch_size=5, verbose=0)

        # 0.94174
        model.fit(x = train_result, y = train_label, epochs = 5000, validation_split = 0.1, batc
        scores = model.evaluate(x = train_result, y = train_label, batch_size=5)
        res = model.predict(test_feature, batch_size=5, verbose=0)
```

1.2.3   batch_size validation_split

```
In [ ]: # 0.93203
        model.fit(x = train_result, y = train_label, epochs = 500, validation_split = 0.07, batc
        scores = model.evaluate(x = train_result, y = train_label, batch_size=2)
        res = model.predict(test_feature, batch_size=2, verbose=0)
```

1.2.4

,

```
model.fit(x = train_result, y = train_label, epochs = 500, validation_split = 0.07, batch_size =
scores = model.evaluate(x = train_result, y = train_label, batch_size=5)
res = model.predict(test_feature, batch_size=5, verbose=0)
```

```
In [ ]: # 0.89644
        model.add(Dense(units=100, input_dim=10, kernel_initializer='uniform'))
        model.add(Activation('relu'))

        model.add(Dense(units=60, kernel_initializer='uniform'))
        model.add(Activation('relu'))

        model.add(Dense(units=30, kernel_initializer='uniform'))
        model.add(Activation('relu'))

        # 0.92556
        model.add(Dense(units=100, input_dim=10, kernel_initializer='uniform'))
        model.add(Activation('relu'))

        model.add(Dense(units=50, kernel_initializer='uniform'))
        model.add(Activation('relu'))

        model.add(Dense(units=25, kernel_initializer='uniform'))
        model.add(Activation('relu'))
```

57Kaggle 0.94822