**TensorFlow｜5｜训练数据**

1. 基本环境

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| 程序名称 | testData.py |
| 硬件环境 | MacOSX |
| 软件环境 | Python3, Spyder, Anaconda |

1. 核心问题：训练数据，并实现可视化

1. 解决过程：

* 选择优化器
* 训练
* 保存数据
* 利用终端打开Tensorboard

tensorboard --logdir="/tmp/mnist\_logs"

* 进入Tensorboard网页查看训练结果

1. 代码：

#优化器

loss = tf.reduce\_mean(tf.nn.softmax\_cross\_entropy\_with\_logits(logits=prediction, labels=labels))

optimizer = tf.train.AdamOptimizer(learning\_rate=0.01).minimize(loss)

#训练

tf.summary.scalar('Loss', loss)

tf.summary.scalar('Accuracy', accuracy)

merged = tf.summary.merge\_all()

sess = tf.InteractiveSession()

saver = tf.train.Saver()

sess.run(tf.global\_variables\_initializer())

writer = tf.summary.FileWriter("/tmp/mnist\_logs", sess.graph)#logdir

for i in range(1950):#iterations

#Next Batch of reviews

nextBatch, nextBatchLabels = getTrainBatch();

sess.run(optimizer, {input\_data: nextBatch, labels: nextBatchLabels})

#将数据写入到Tensorboard

if (i % 50 == 0):

print(i)

summary = sess.run(merged, {input\_data: nextBatch, labels: nextBatchLabels})

writer.add\_summary(summary, i)

#保存数据

save\_path = saver.save(sess, "models/pretrained\_lstm.ckpt", global\_step=i)

print("saved to %s" % save\_path)

writer.close()

1. 结果：

**利用终端打开Tensorboard**

$ tensorboard --logdir="/tmp/mnist\_logs"

TensorBoard 0.1.8 at http://MacBook-Air-3.local:6006 (Press CTRL+C to quit)

**进入Tensorboard网页查看训练结果**

得到如图所示的准确率函数以及损失函数：

