tensorflow快速入门

变量定义

有初始值的变量

```python
matrix1=tf.constant([[3,3]])
matrix2=tf.constant([[2],[2]])

product = tf.matmul(matrix1,matrix2)

# #method 1
# sess = tf.Session()
# result = sess.run(product)
# print(result)
# sess.close()

# method 2
with tf.Session() as sess:
    result2 = sess.run(product)
    print(result2)
```

无初始值的变量定义使用占位符placeholder占位，后续加入值

```python
import tensorflow as tf

input1 = tf.placeholder(tf.float32)
input2 = tf.placeholder(tf.float32)

output = tf.multiply(input1,input2)

with tf.Session() as sess:
    print(sess.run(output,feed_dict={input1:[7.],input2:[2.]}))
```

常量定义

```python
import tensorflow as tf

state = tf.Variable(0,name='counter')
#print(state.name)
one = tf.constant(1)

new_value = tf.add(state , one)
update = tf.assign(state,new_value)

init = tf.global_variables_initializer() #must have if define variable

with tf.Session() as sess:
    sess.run(init)
    for _ in range(3):
        sess.run(update)
        print(sess.run(state))
```