**最简单的理解tensorflow分布式计算的例子**

2018年1月11日 星期四

下午 11:05

目的是在每个worker使count+1

import tensorflow as tf

FLAGS = tf.app.flags.FLAGS  
tf.app.flags.DEFINE\_string('job\_name', '', '')  
tf.app.flags.DEFINE\_string('ps\_hosts', '', '')  
tf.app.flags.DEFINE\_string('worker\_hosts', '','')  
tf.app.flags.DEFINE\_integer('task\_index', 0, '')

ps\_hosts = FLAGS.ps\_hosts.split(',')  
worker\_hosts = FLAGS.worker\_hosts.split(',')  
cluster\_spec = tf.train.ClusterSpec({'ps': ps\_hosts,'worker': worker\_hosts})  
server = tf.train.Server(  
 {'ps': ps\_hosts,'worker': worker\_hosts},  
 job\_name=FLAGS.job\_name,  
 task\_index=FLAGS.task\_index)

if FLAGS.job\_name == 'ps':  
 server.join()

with tf.device(tf.train.replica\_device\_setter(  
 worker\_device="/job:worker/task:%d" % FLAGS.task\_index,  
 cluster=cluster\_spec)):  
 count = tf.Variable(0)  
 increment\_count = count.assign\_add(1)  
 init = tf.global\_variables\_initializer()

sv = tf.train.Supervisor(is\_chief=(FLAGS.task\_index == 0),  
 logdir="./checkpoint/",  
 init\_op=init,  
 summary\_op=None,  
 saver=None,  
 global\_step=None,  
 save\_model\_secs=60)

with sv.managed\_session(server.target) as sess:  
 sess.run(init)  
 step = 1  
 while step <= 200000:  
 result = sess.run(increment\_count)  
 if step%10000 == 0:  
 print(result)  
 if result==2:  
 print("!!!!!!!!")  
 step += 1  
 print("Finished!")

sv.stop()

运行方法

在192.168.1.151执行

python distribute.py --job\_name=worker --ps\_hosts=192.168.1.150:1111 --worker\_hosts=192.168.1.150:2222,192.168.1.151:2223 --task\_index=1

在192.168.1.150执行

python distribute.py --job\_name=worker --ps\_hosts=192.168.1.150:1111 --worker\_hosts=192.168.1.150:2222,192.168.1.151:2223 --task\_index=0

在192.168.1.150执行

python distribute.py --job\_name=ps --ps\_hosts=192.168.1.150:1111 --worker\_hosts=192.168.1.150:2222,192.168.1.151:2223 --task\_index=0

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