

# 编译 tensorflow 1.8 c++库

- 1) 下载安装 JDK8, 地址: <https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

添加环境变量:

```
export JAVA_HOME=/usr/lib/jvm/jdk1.8.0_171
export JRE_HOME=/usr/lib/jvm/jdk1.8.0_171/jre
export PATH=$JAVA_HOME/bin:$JAVA_HOME/jre/bin:$PATH
export CLASSPATH=$CLASSPATH:.$JAVA_HOME/lib:$JAVA_HOME/jre/lib
```

- 2) 下载安装 bazel 0.13.0, 地址: <https://github.com/bazelbuild/bazel/releases>

添加环境变量:

```
export PATH = bazel_path/bin/:$PATH
```

- 3) 下载安装 cmake 3.0, 地址: <https://cmake.org/download/>

添加环境变量:

```
export PATH = cmake_path/bin/:$PATH
```

- 4) 下载安装 protobuf 3.5.x, 地址: <https://github.com/protocolbuffers/protobuf/tree/3.5.x>

添加环境变量:

```
export PATH = protobuf_path/bin/:$PATH
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH: protobuf_path /lib/
```

- 5) 下载 tensorflow1.8, 地址: <https://github.com/tensorflow/tensorflow/tree/r1.8>

. /configure 默认选项, cuda 支持选择 n

bazel build //tensorflow:libtensorflow\_cc.so 编译 c++, 大概半小时左右

- 6) 编译完成以后, tensorflow 目录会生成多个编译好的目录。

新建 include 和 lib 目录, 将 bazel-genfiles, bazel-tensorflow-1.8.0/tensorflow, bazel-tensorflow-1.8.0/third\_party, tensorflow-1.8.0/external 目录拷贝到 include 目录下, 将 bazel-bin/tensorflow 目录下的 libtensorflow\_cc.so 和 libtensorflow\_framework.so 拷贝到 lib 目录下。

由于 1.8 版本的 eigen3 库可能存在编译方面的一些问题, 可以拷贝低版本的 eigen3 库到 include 目录下。

添加头文件搜索路径:

```
-linclude/ eigen3
-linclude/bazel-genfiles
-linclude/external/nsync/public
-linclude
-lprotobuf/include
```

编译链接指定：

`-L/lib -L/protobuf /lib -ltensorflow_cc -ltensorflow_framework -lprotobuf`