1、首先安装一些依赖库

```
sudo apt-get install build-essential cmake
sudo apt-get install libgtk-3-dev
sudo apt-get install libboost-all-dev
```

2、下载安装dlib

```
配置CUDA加速环境
git clone https://github.com/davisking/dlib.git
cd dlib
mkdir build
cd build
cmake .. -DDLIB_USE_CUDA=1 -DUSE_AVX_INSTRUCTIONS=1
```

```
(py36_torch1.1) shengdan@baihu:~/service/dlib/build$ cmake .. -DDLIB_USE_CUDA=1 -DUSE_AVX_INSTRUCTIONS=1
-- Using CMake version: 3.11.1
-- Compiling dlib version: 19.19.99
-- Enabling AVX instructions
-- Found system copy of libpng: /usr/lib/x86_64-linux-gnu/libpng.so;/usr/lib/x86_64-linux-gnu/libz.so
-- Found system copy of libjpeg: /usr/lib/x86_64-linux-gnu/libjpeg.so
-- Searching for BLAS and LAPACK
-- Searching for BLAS and LAPACK
-- Checking for module 'cblas'
--   No package 'cblas' found
-- Found OpenBLAS library
-- Using OpenBLAS's built in LAPACK
-- Looking for cuDNN install...
-- Found cuDNN: /usr/local/cuda-9.0/lib64/libcudnn.so
-- Enabling CUDA support for dlib.  DLIB WILL USE CUDA
-- C++11 activated.
-- Configuring done
-- Generating done
-- Build files have been written to: /home/shengdan/service/dlib/build
```

3、编译

```
cmake --build .
#cuda10 无需改代码
#cuda9 会报log1p不允许错误，将dlib/dlib/cuda/cuda_dlib.cu 第1691行 log1p(x)改成log(1+x)
```

```
(py36_torch1.1) shengdan@baihu:~/service/dlib/build$ cmake --build .
[  1%] Building NVCC (Device) object dlib/CMakeFiles/dlib.dir/cuda/dlib_generated_cuda_dlib.cu.o
[  1%] Linking CXX static library libdlib.a
[  1%] Built target dlib
```

```
cd ..
 python setup.py install --set USE_AVX_INSTRUCTIONS=yes --set DLIB_USE_CUDA=yes
```

```
Invoking CMake build: 'cmake --build . --config Release -- -j24'
[  1%] Building NVCC (Device) object dlib_build/CMakeFiles/dlib.dir/cuda/dlib_generated_cuda_dlib.cu.o
[  2%] Linking CXX static library libdlib.a
[ 70%] Built target dlib
[ 72%] Linking CXX shared module /home/shengdan/service/dlib/build/lib.linux-x86_64-3.6/dlib.cpython-36m-x86_64-linux-gnu.so
[100%] Built target dlib_python
creating build/bdist.linux-x86_64/egg
copying build/lib.linux-x86_64-3.6/dlib.cpython-36m-x86_64-linux-gnu.so -> build/bdist.linux-x86_64/egg
creating stub loader for dlib.cpython-36m-x86_64-linux-gnu.so
byte-compiling build/bdist.linux-x86_64/egg/dlib.py to dlib.cpython-36.pyc
creating build/bdist.linux-x86_64/egg/EGG-INFO
copying dlib.egg-info/PKG-INFO -> build/bdist.linux-x86_64/egg/EGG-INFO
copying dlib.egg-info/SOURCES.txt -> build/bdist.linux-x86_64/egg/EGG-INFO
copying dlib.egg-info/dependency_links.txt -> build/bdist.linux-x86_64/egg/EGG-INFO
copying dlib.egg-info/not-zip-safe -> build/bdist.linux-x86_64/egg/EGG-INFO
copying dlib.egg-info/top_level.txt -> build/bdist.linux-x86_64/egg/EGG-INFO
writing build/bdist.linux-x86_64/egg/EGG-INFO/native_libs.txt
creating 'dist/dlib-19.19.99-py3.6-linux-x86_64.egg' and adding 'build/bdist.linux-x86_64/egg' to it
removing 'build/bdist.linux-x86_64/egg' (and everything under it)
Processing dlib-19.19.99-py3.6-linux-x86_64.egg
removing '/home/shengdan/anaconda3/envs/py36_torch1.1/lib/python3.6/site-packages/dlib-19.19.99-py3.6-linux-x86_64.egg' (and everything under it)
creating /home/shengdan/anaconda3/envs/py36_torch1.1/lib/python3.6/site-packages/dlib-19.19.99-py3.6-linux-x86_64.egg
Extracting dlib-19.19.99-py3.6-linux-x86_64.egg to /home/shengdan/anaconda3/envs/py36_torch1.1/lib/python3.6/site-packages
dlib 19.19.99 is already the active version in easy-install.pth

Installed /home/shengdan/anaconda3/envs/py36_torch1.1/lib/python3.6/site-packages/dlib-19.19.99-py3.6-linux-x86_64.egg
Processing dependencies for dlib==19.19.99
Finished processing dependencies for dlib==19.19.99
```

```
#测试
import dlib
dlib.DLIB_USE_CUDA
```

```
(py36_torch1.1) shengdan@baihu:~/service/dlib$ python
Python 3.6.9 |Anaconda, Inc.| (default, Jul 30 2019, 19:07:31)
[GCC 7.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import dlib
>>> dlib.DLIB_USE_CUDA
True
>>>
```