cgx@cgx:/usr/bin$ cp -r /usr/src/cudnn\_samples\_v7/ $HOME

cgx@cgx:/usr/bin$ cd $HOME/cudnn\_samples\_v7/mnistCUDNN

cgx@cgx:~/cudnn\_samples\_v7/mnistCUDNN$ sudo make clean && make

rm -rf \*o

rm -rf mnistCUDNN

Linking agains cublasLt = true

CUDA VERSION: 10020

TARGET ARCH: x86\_64

HOST\_ARCH: x86\_64

TARGET OS: linux

SMS: 30 35 50 53 60 61 62 70 72 75

/usr/local/cuda/bin/nvcc -ccbin g++ -I/usr/local/cuda/include -I/usr/local/cuda/include -IFreeImage/include -m64 -gencode arch=compute\_30,code=sm\_30 -gencode arch=compute\_35,code=sm\_35 -gencode arch=compute\_50,code=sm\_50 -gencode arch=compute\_53,code=sm\_53 -gencode arch=compute\_60,code=sm\_60 -gencode arch=compute\_61,code=sm\_61 -gencode arch=compute\_62,code=sm\_62 -gencode arch=compute\_70,code=sm\_70 -gencode arch=compute\_72,code=sm\_72 -gencode arch=compute\_75,code=sm\_75 -gencode arch=compute\_75,code=compute\_75 -o fp16\_dev.o -c fp16\_dev.cu

g++ -I/usr/local/cuda/include -I/usr/local/cuda/include -IFreeImage/include -o fp16\_emu.o -c fp16\_emu.cpp

g++ -I/usr/local/cuda/include -I/usr/local/cuda/include -IFreeImage/include -o mnistCUDNN.o -c mnistCUDNN.cpp

/usr/local/cuda/bin/nvcc -ccbin g++ -m64 -gencode arch=compute\_30,code=sm\_30 -gencode arch=compute\_35,code=sm\_35 -gencode arch=compute\_50,code=sm\_50 -gencode arch=compute\_53,code=sm\_53 -gencode arch=compute\_60,code=sm\_60 -gencode arch=compute\_61,code=sm\_61 -gencode arch=compute\_62,code=sm\_62 -gencode arch=compute\_70,code=sm\_70 -gencode arch=compute\_72,code=sm\_72 -gencode arch=compute\_75,code=sm\_75 -gencode arch=compute\_75,code=compute\_75 -o mnistCUDNN fp16\_dev.o fp16\_emu.o mnistCUDNN.o -I/usr/local/cuda/include -I/usr/local/cuda/include -IFreeImage/include -L/usr/local/cuda/lib64 -L/usr/local/cuda/lib64 -lcublasLt -LFreeImage/lib/linux/x86\_64 -LFreeImage/lib/linux -lcudart -lcublas -lcudnn -lfreeimage -lstdc++ -lm

cgx@cgx:~/cudnn\_samples\_v7/mnistCUDNN$ ./mnistCUDNN

cudnnGetVersion() : 7605 , CUDNN\_VERSION from cudnn.h : 7605 (7.6.5)

Host compiler version : GCC 8.4.0

There are 1 CUDA capable devices on your machine :

device 0 : sms 16 Capabilities 7.5, SmClock 1560.0 Mhz, MemSize (Mb) 3911, MemClock 4001.0 Mhz, Ecc=0, boardGroupID=0

Using device 0

Testing single precision

Loading image data/one\_28x28.pgm

Performing forward propagation ...

Testing cudnnGetConvolutionForwardAlgorithm ...

Fastest algorithm is Algo 0

Testing cudnnFindConvolutionForwardAlgorithm ...

^^^^ CUDNN\_STATUS\_SUCCESS for Algo 0: 0.010976 time requiring 0 memory

^^^^ CUDNN\_STATUS\_SUCCESS for Algo 1: 0.030976 time requiring 3464 memory

^^^^ CUDNN\_STATUS\_SUCCESS for Algo 2: 0.038912 time requiring 57600 memory

^^^^ CUDNN\_STATUS\_SUCCESS for Algo 5: 0.054816 time requiring 203008 memory

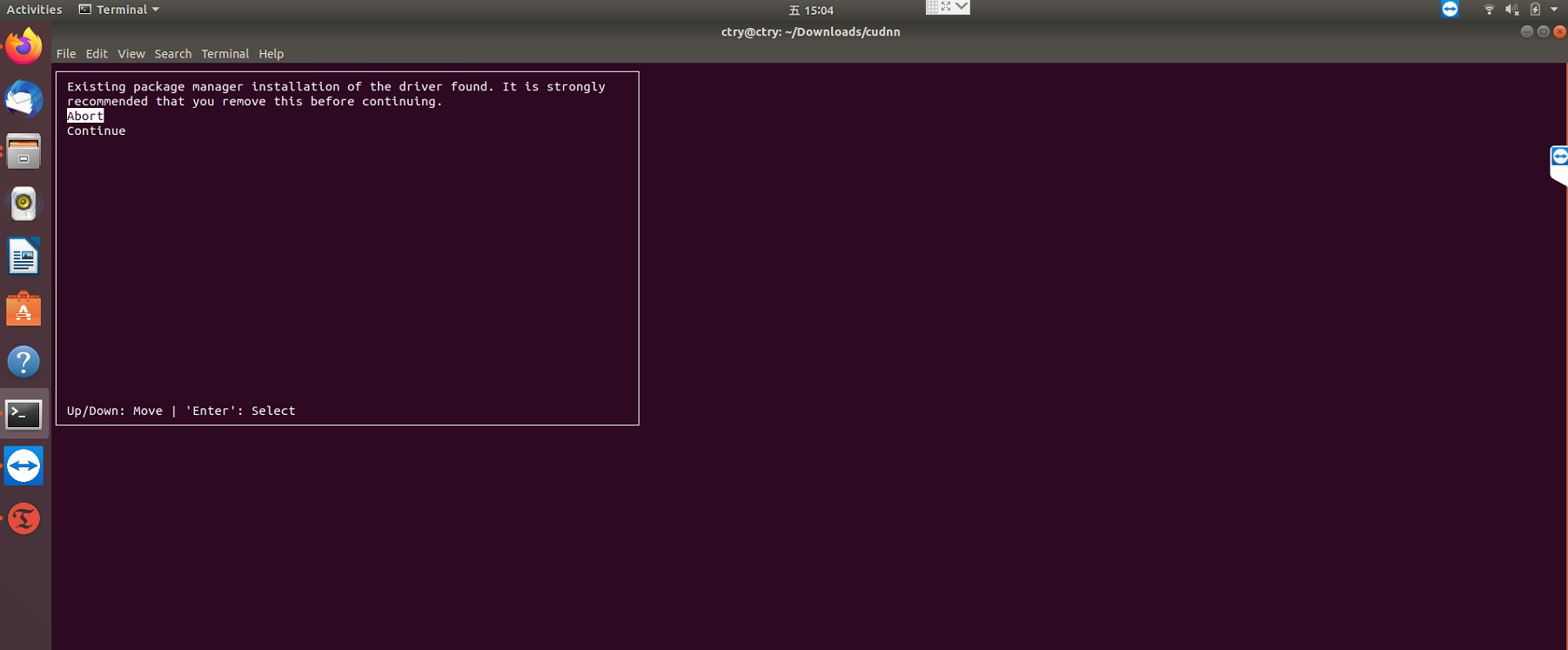
^^^^ CUDNN\_STATUS\_SUCCESS for Algo 7: 0.114496 time requiring 2057744 memory

**Cublas failure**

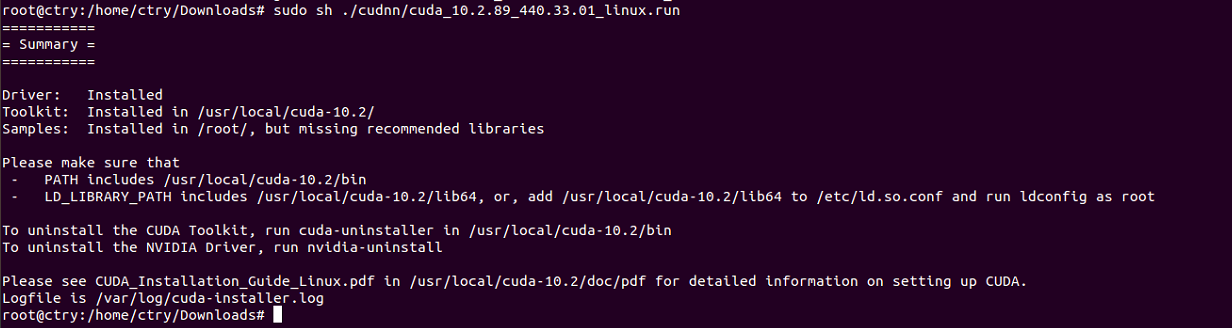
**Error code 0**

**gemv.h:77**

**Aborting...**

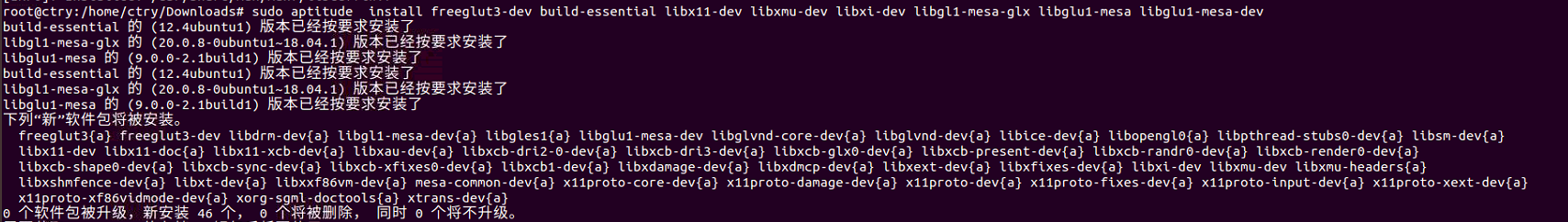


**缺少依赖库**



**使用apttitude进行升级安装**

**sudo apt-get install freeglut3-dev build-essential libx11-dev libxmu-dev libxi-dev libgl1-mesa-glx libglu1-mesa libglu1-mesa-dev**



**安装好之后，nvcc -V 没有反应，是因为还需要配置环境变量**



**根据安装的提示来修改环境变量**

**Driver: Installed**

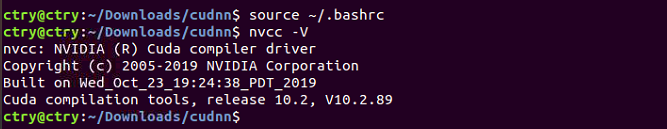
**Toolkit: Installed in /usr/local/cuda-10.2/**

**Samples: Installed in /home/ctry/**

**修改 sudo vim ~/.bashrc 在末尾添加**

**export PATH=/usr/local/cuda-10.2/bin:$PATH**

**export LD\_LIBRARY\_PATH=/usr/local/cuda-10.2/lib64:$LD\_LIBRARY\_PATH**



**以上就安装好了cuda**

**接下来就是安装cudnn**

**下载这几个文件**

**tar -xvf cudnn-10.2-linux-x64-v7.6.5.32.tgz**

**sudo cp cuda/include/cudnn\*.h /usr/local/cuda/include**

**sudo cp cuda/lib64/libcudnn\* /usr/local/cuda/lib64**

**sudo chmod a+r /usr/local/cuda/include/cudnn\*.h /usr/local/cuda/lib64/libcudnn**

**测试用例**

