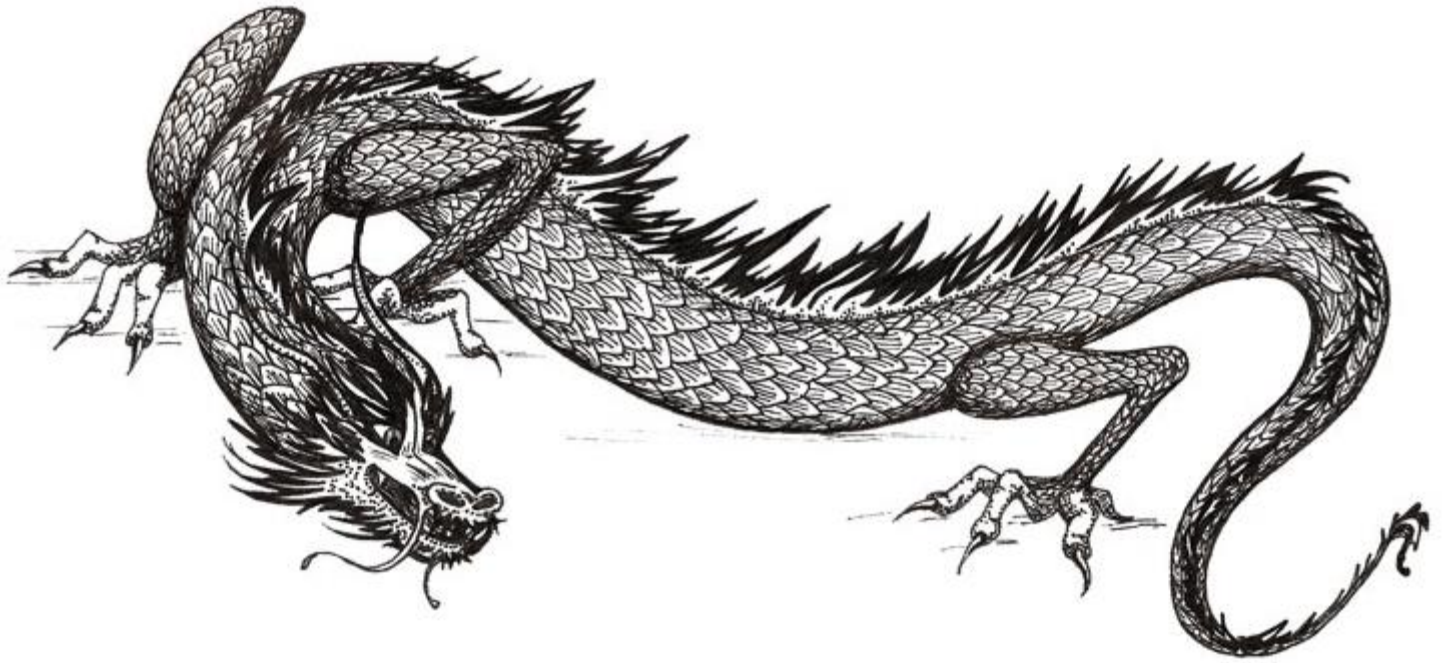


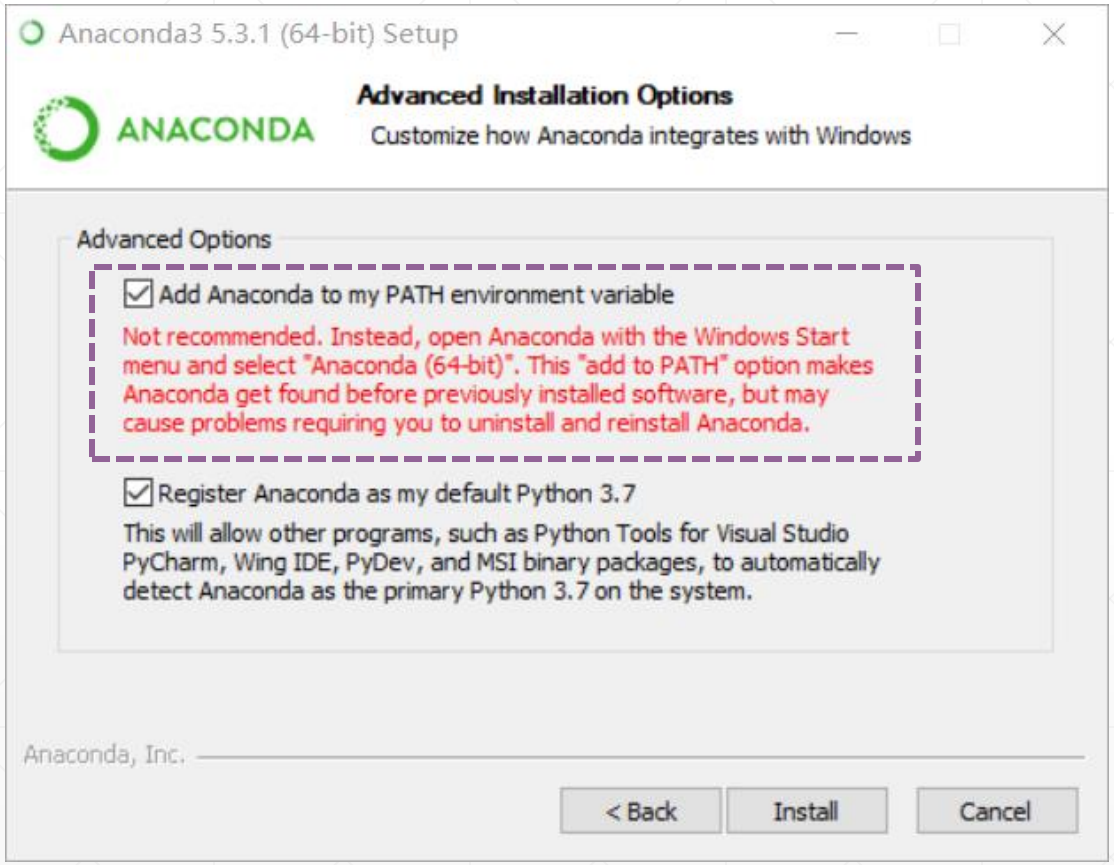
开发环境安装-Win10

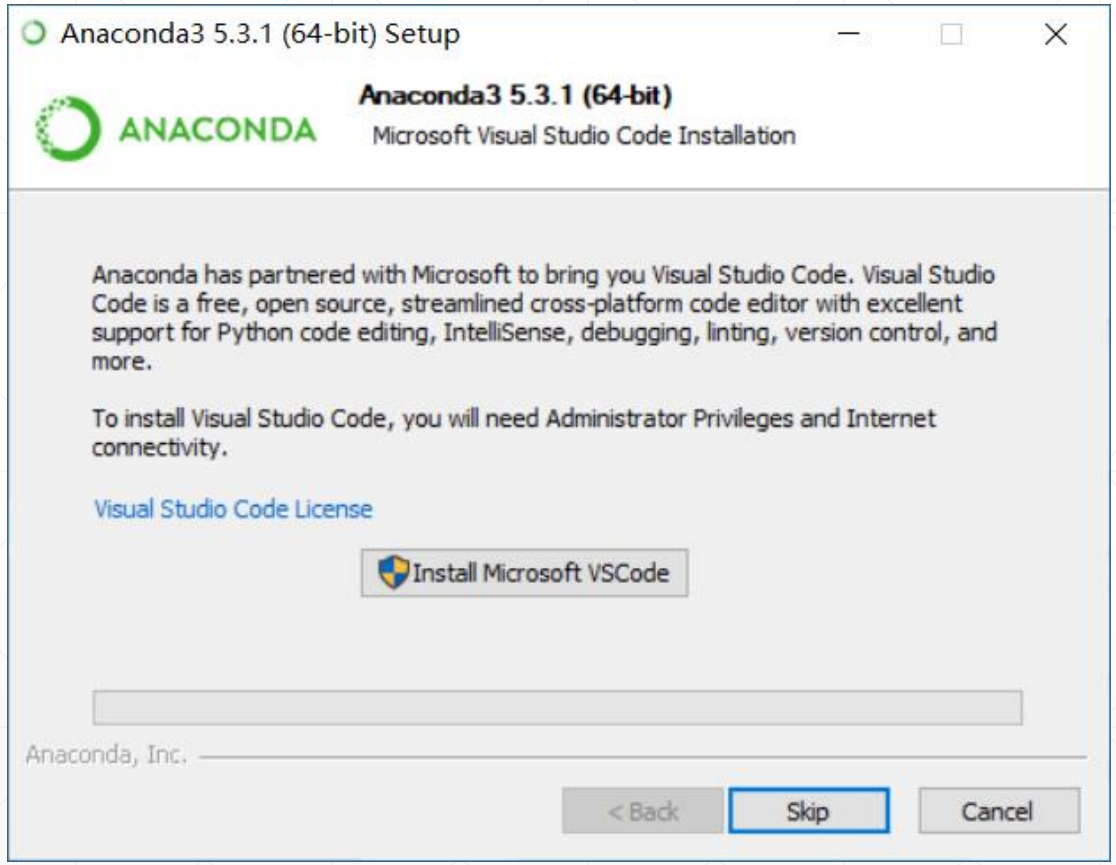
主讲人：龙良曲

Platform

- Windows 10
  - Or Ubuntu 16.04/18.04
- Anaconda, Python 3.7
- CUDA 10.0
  - cuDNN
- TensorFlow 2.0
- PyCharm

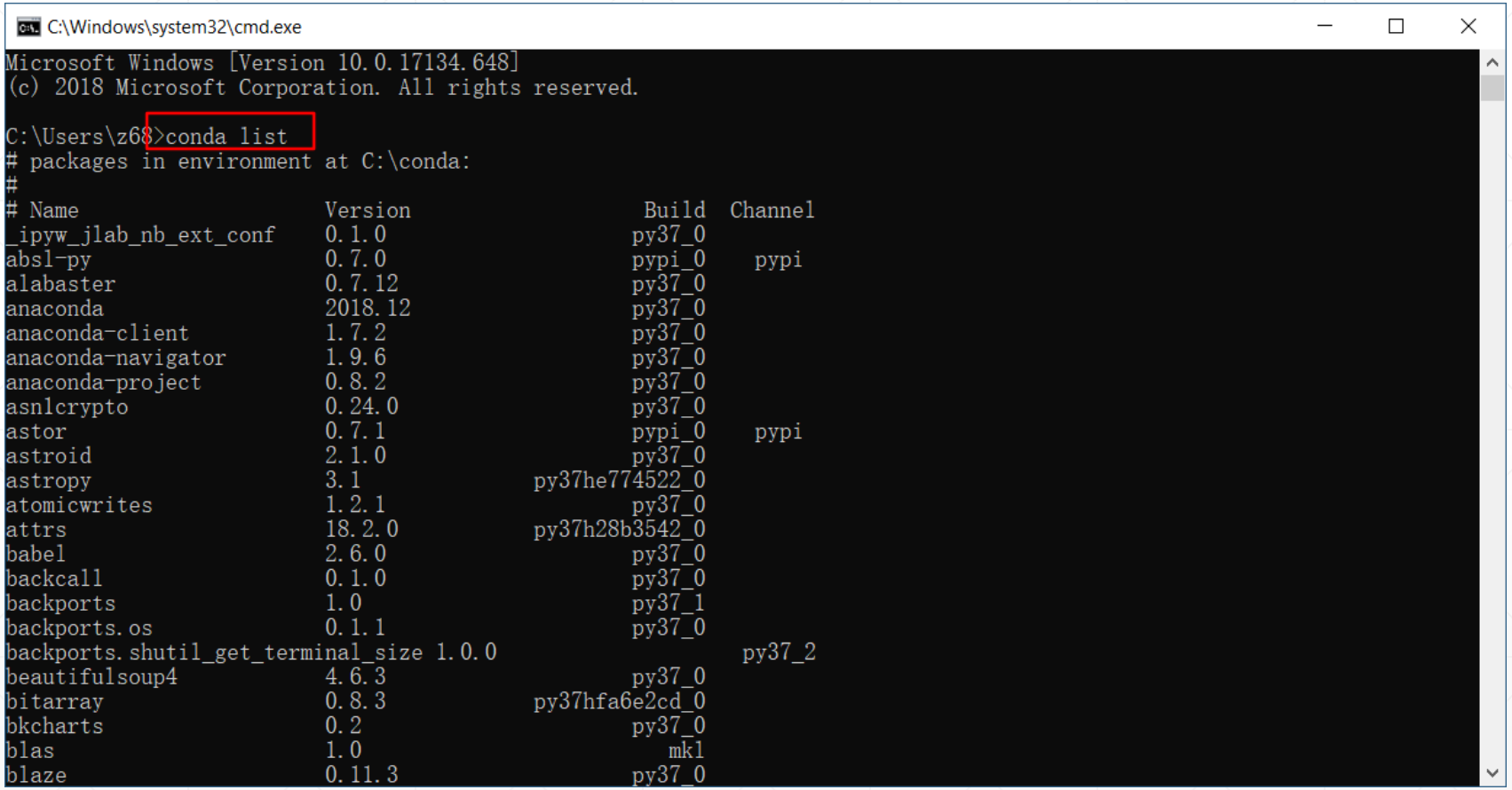
Step1.ANACONDA Python:3.7





https://www.anaconda.com/distribution/#download-section

Step1.Anaconda安装确认



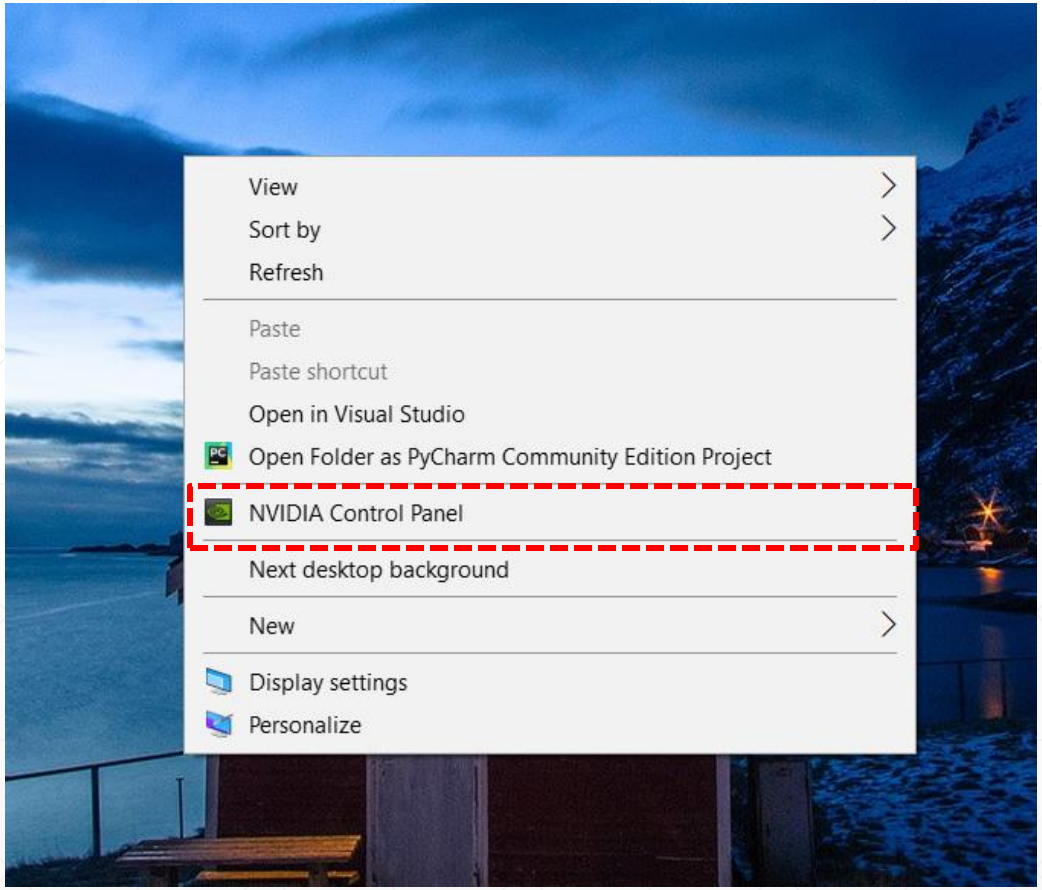
Step2.CUDA 10.0

- NVIDIA显卡
  - GTX 1060 6GB
  - GTX 1080Ti 11GB
- CUDA安装
  - 驱动
  - CUPTI
- cuDNN安装
- PATH配置

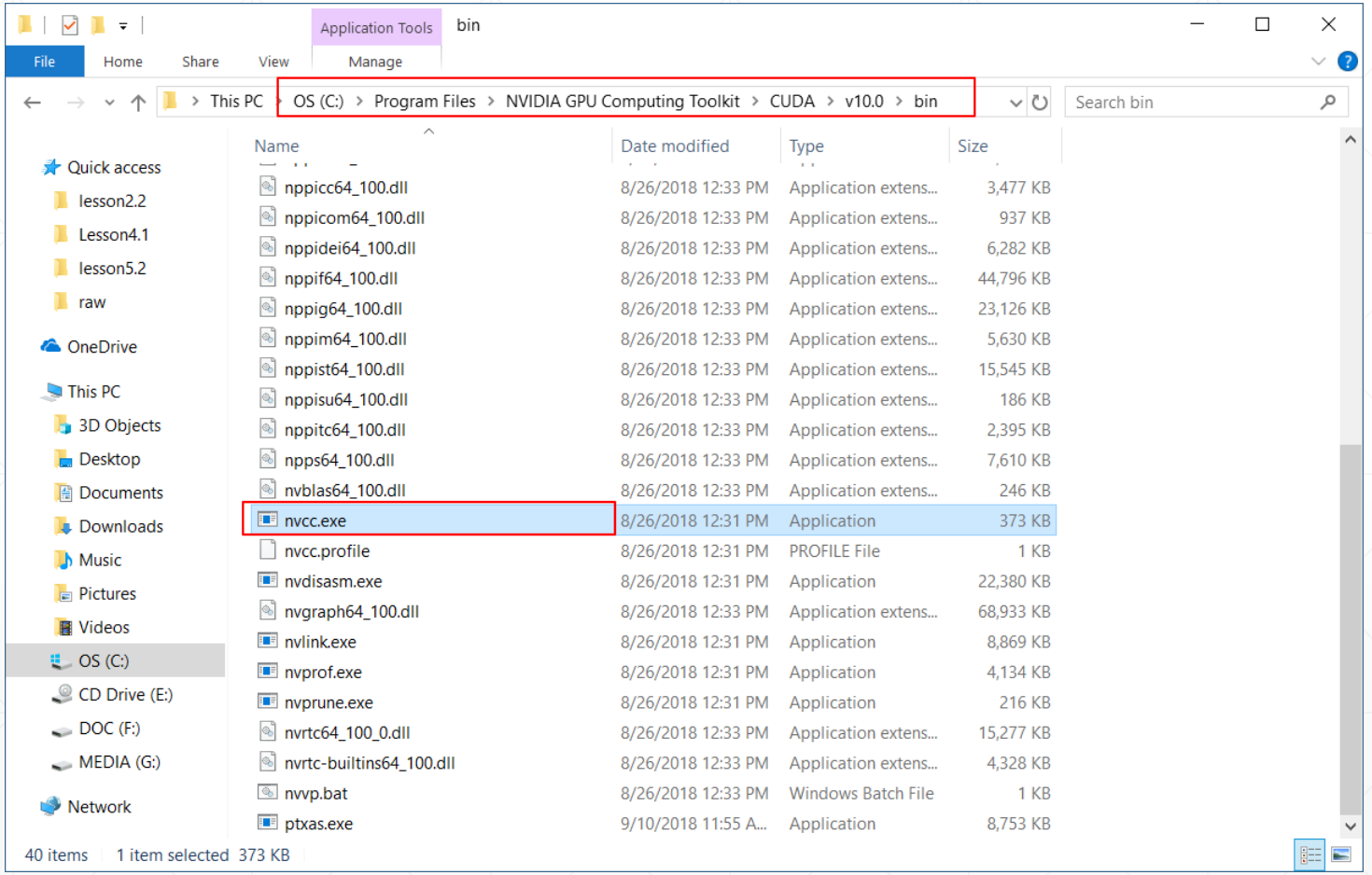
Step2.1.CUDA安装

https://developer.nvidia.com/cuda-10.0-download-archive?target_os=Windows&target_arch=x86_64&target_version=10&target_type=exelocal

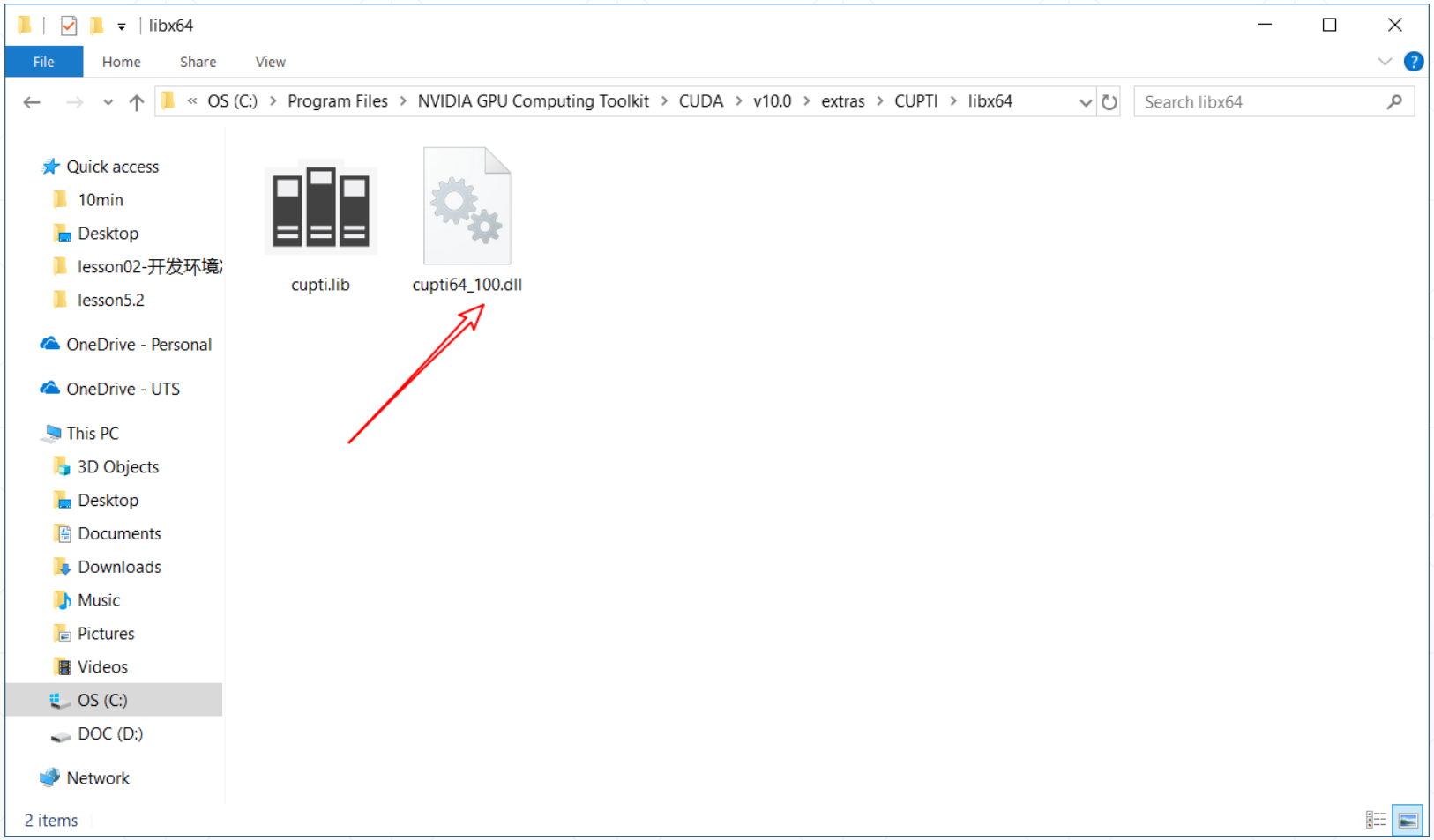
Step2.1.（重启后）驱动安装确认



Step2.1.CUDA 安装确认

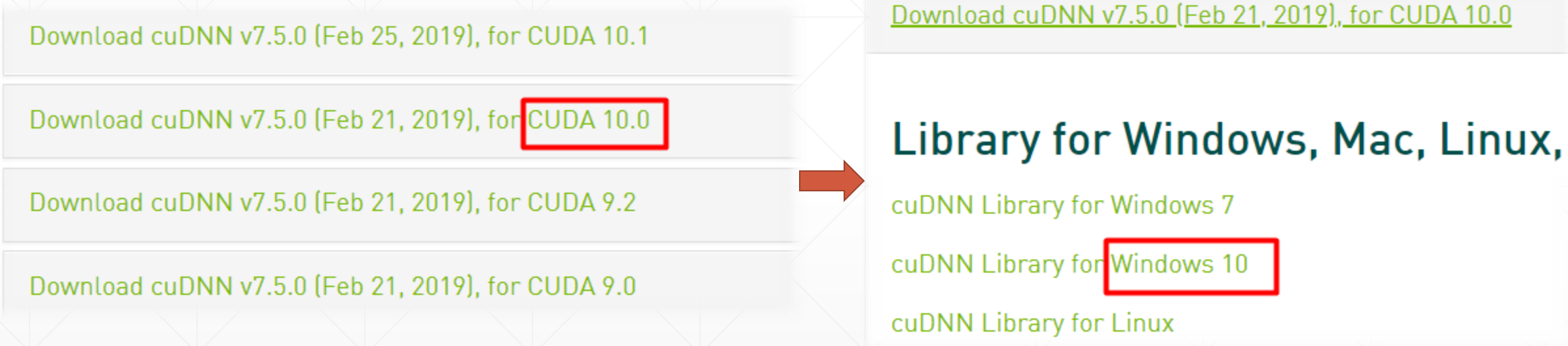


Step2.1.CUPTI确认



Step2.2.cuDNN下载

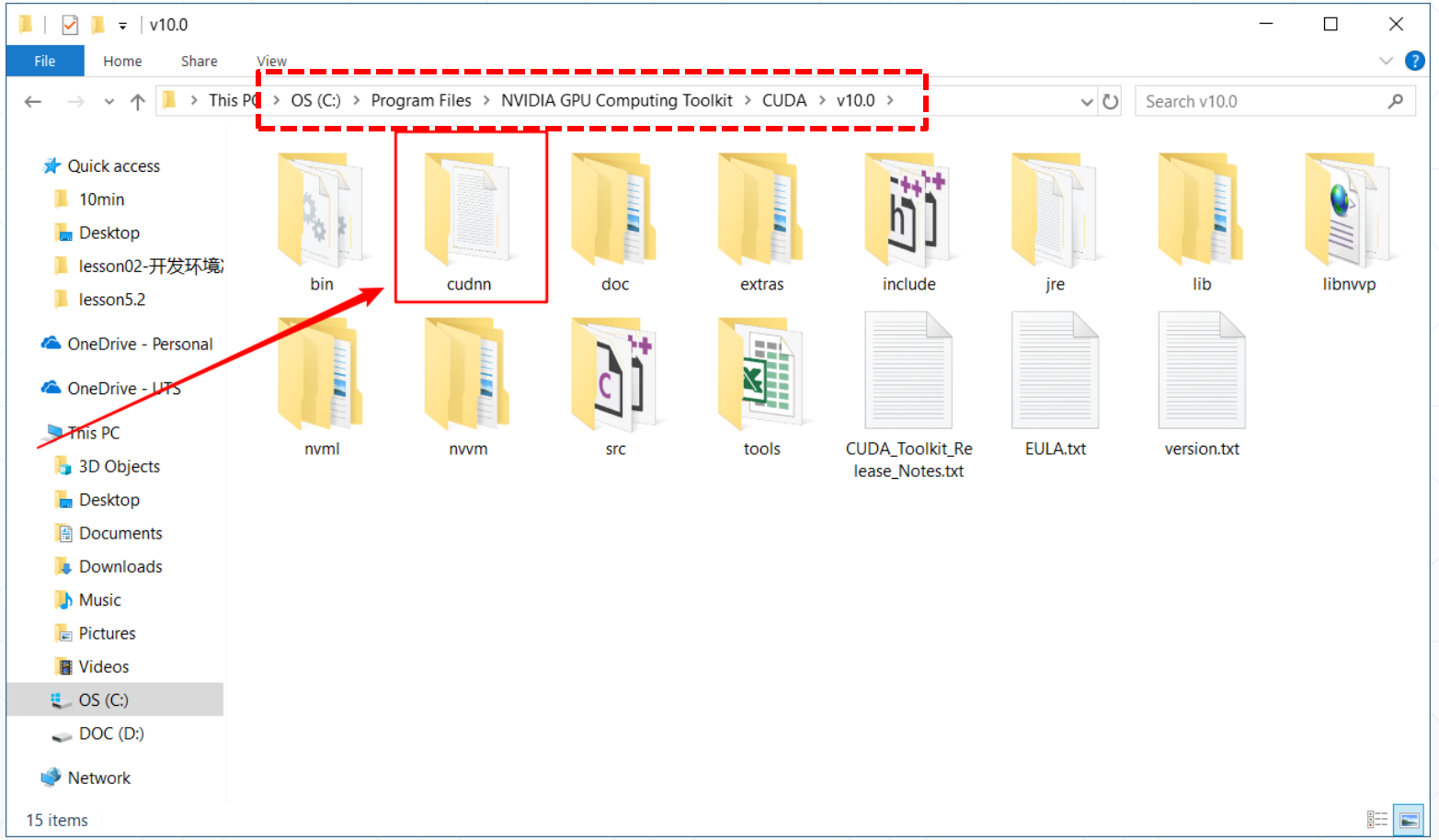
- 需要NVIDIA注册



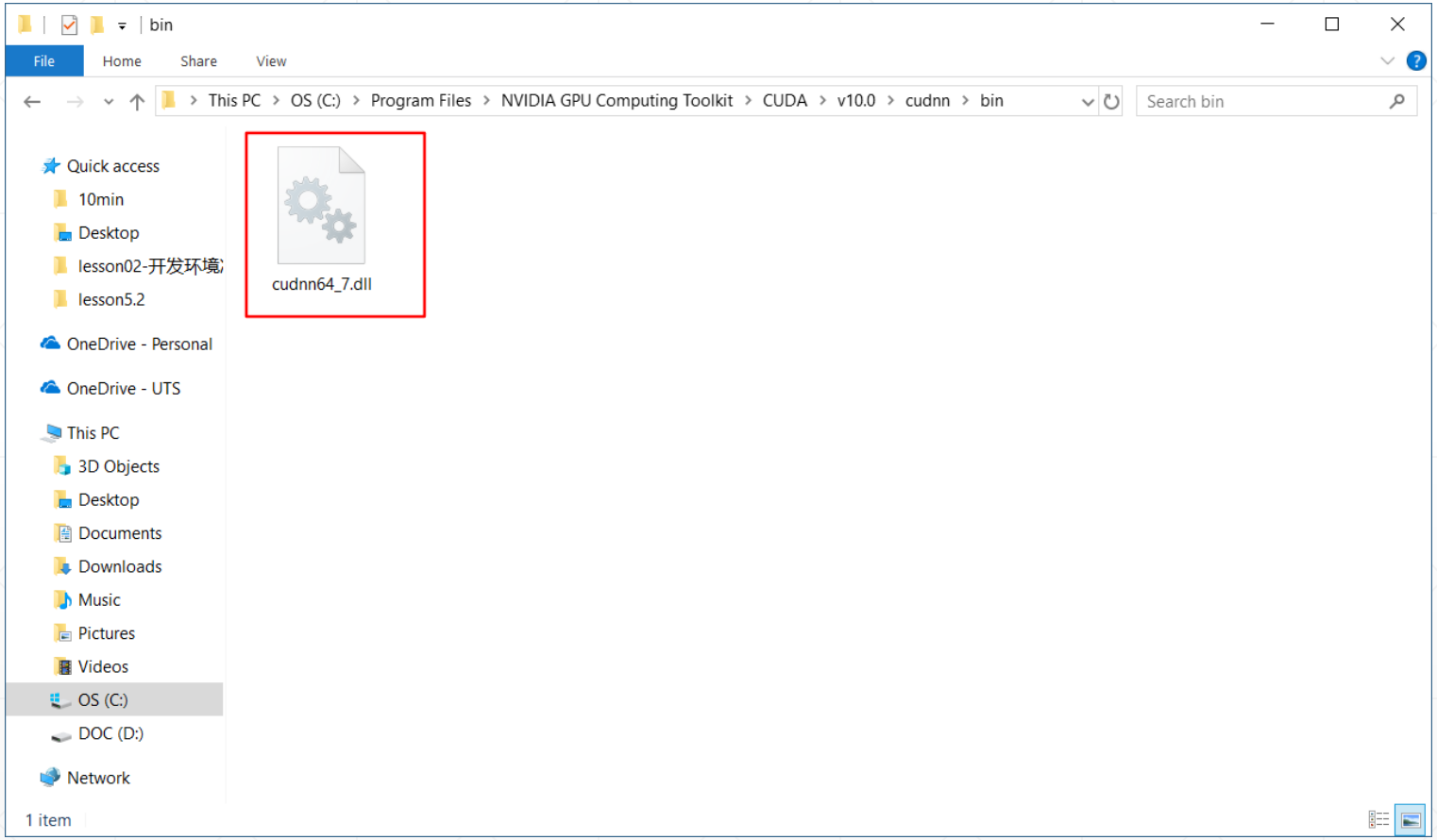
https://developer.nvidia.com/rdp/cudnn-download

Step2.2.cuDNN复制

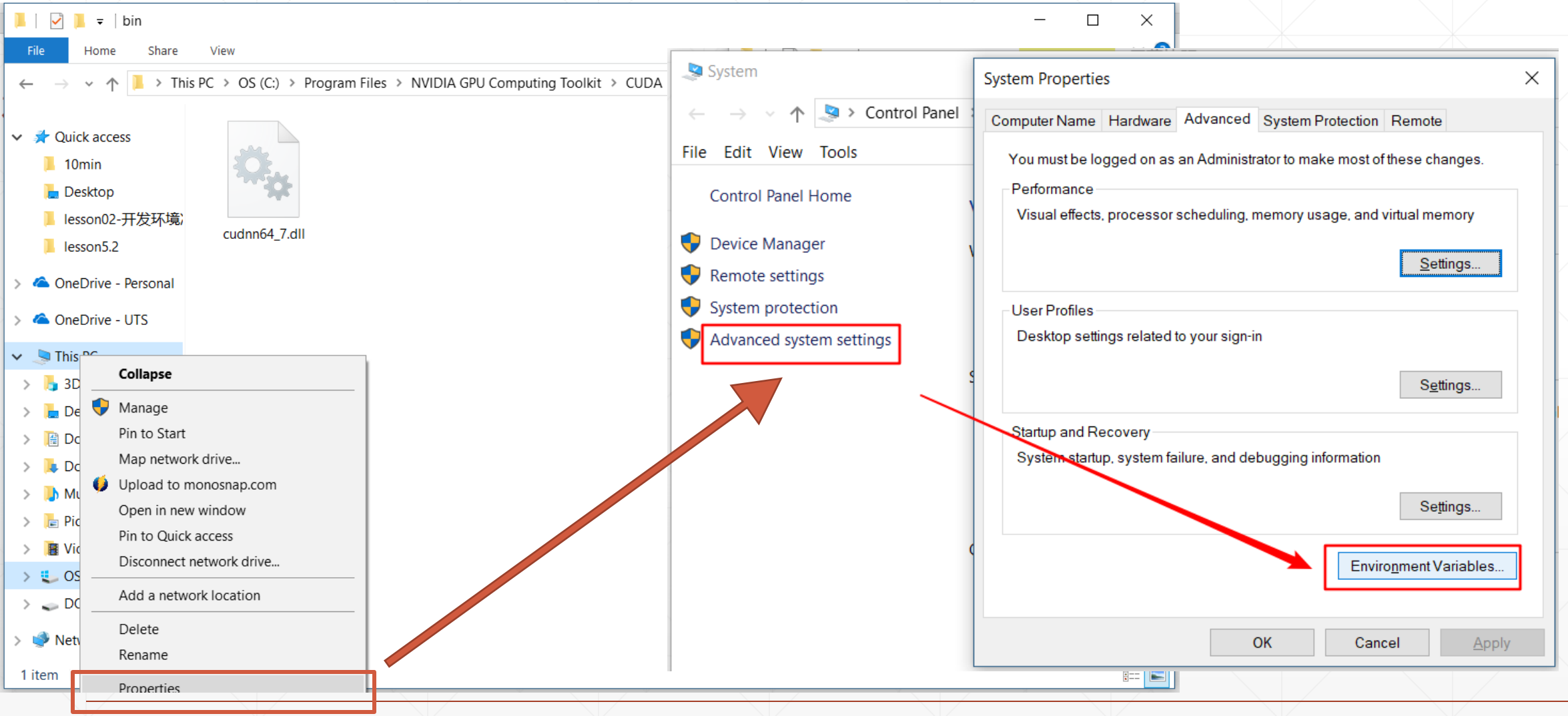
- 解压
- cuda文件夹改名为
  - cudnn
- 复制到：



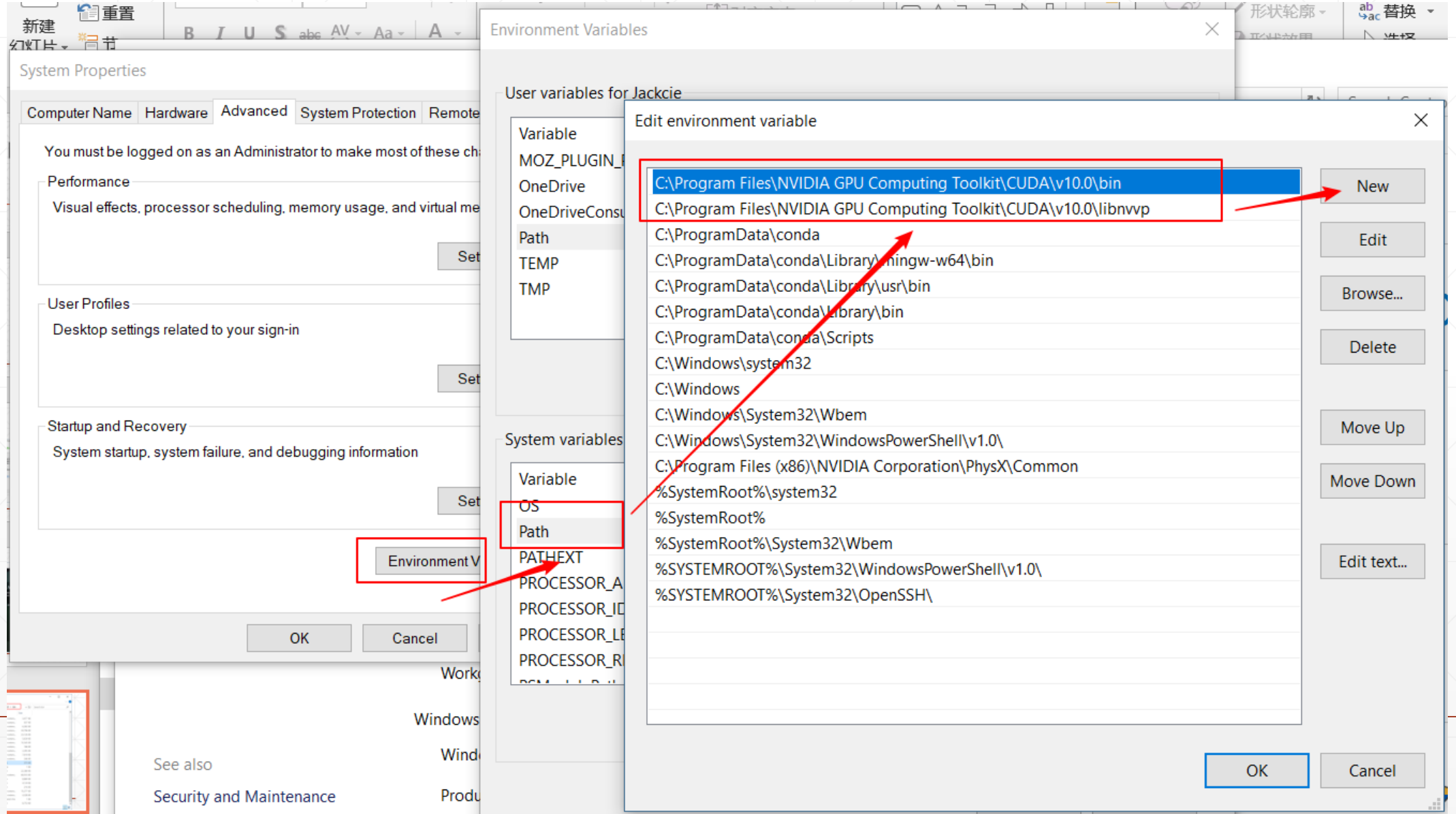
Step2.2.cuDNN确认



Step2.3.环境变量配置

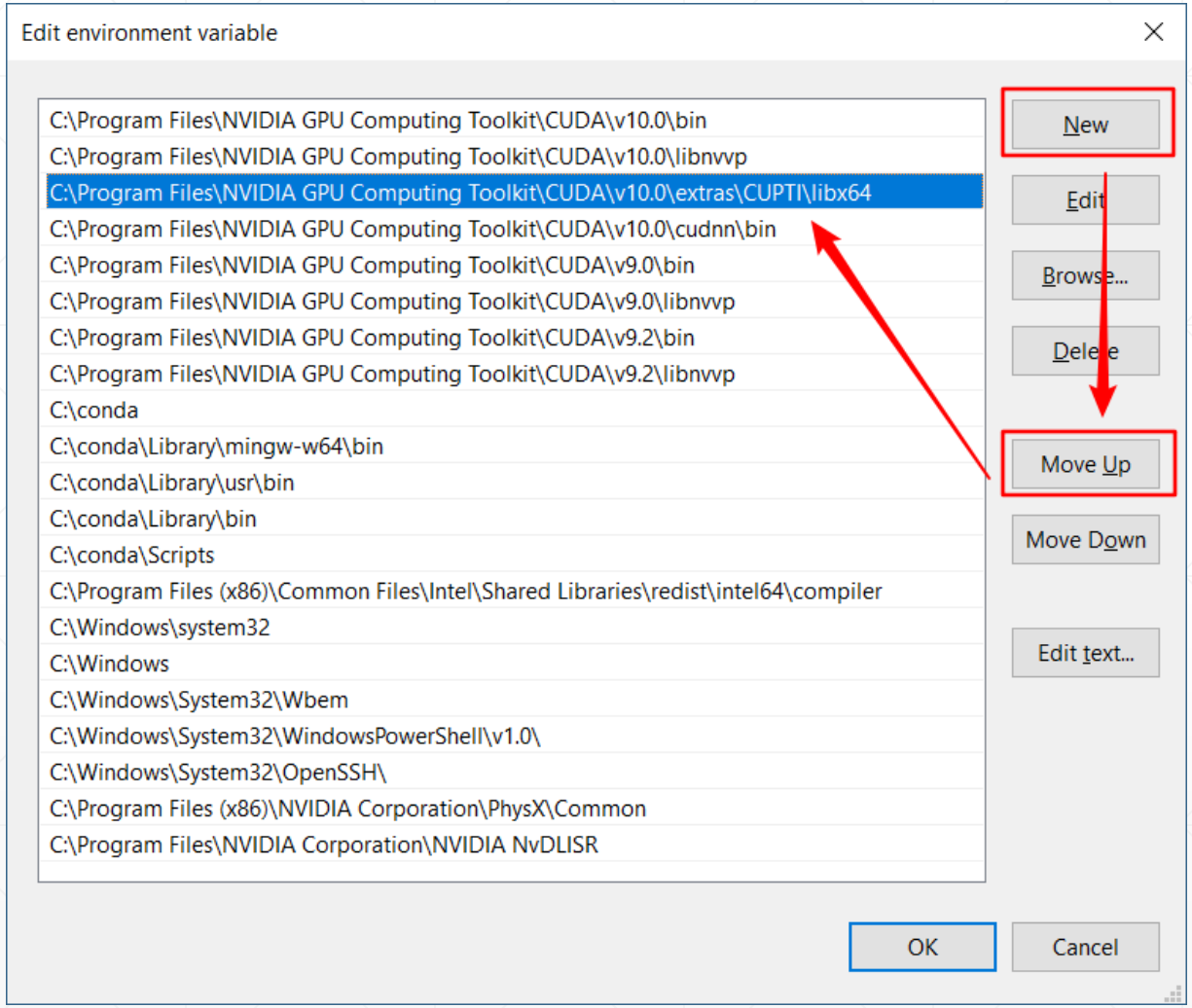


Step2.3.环境变量配置



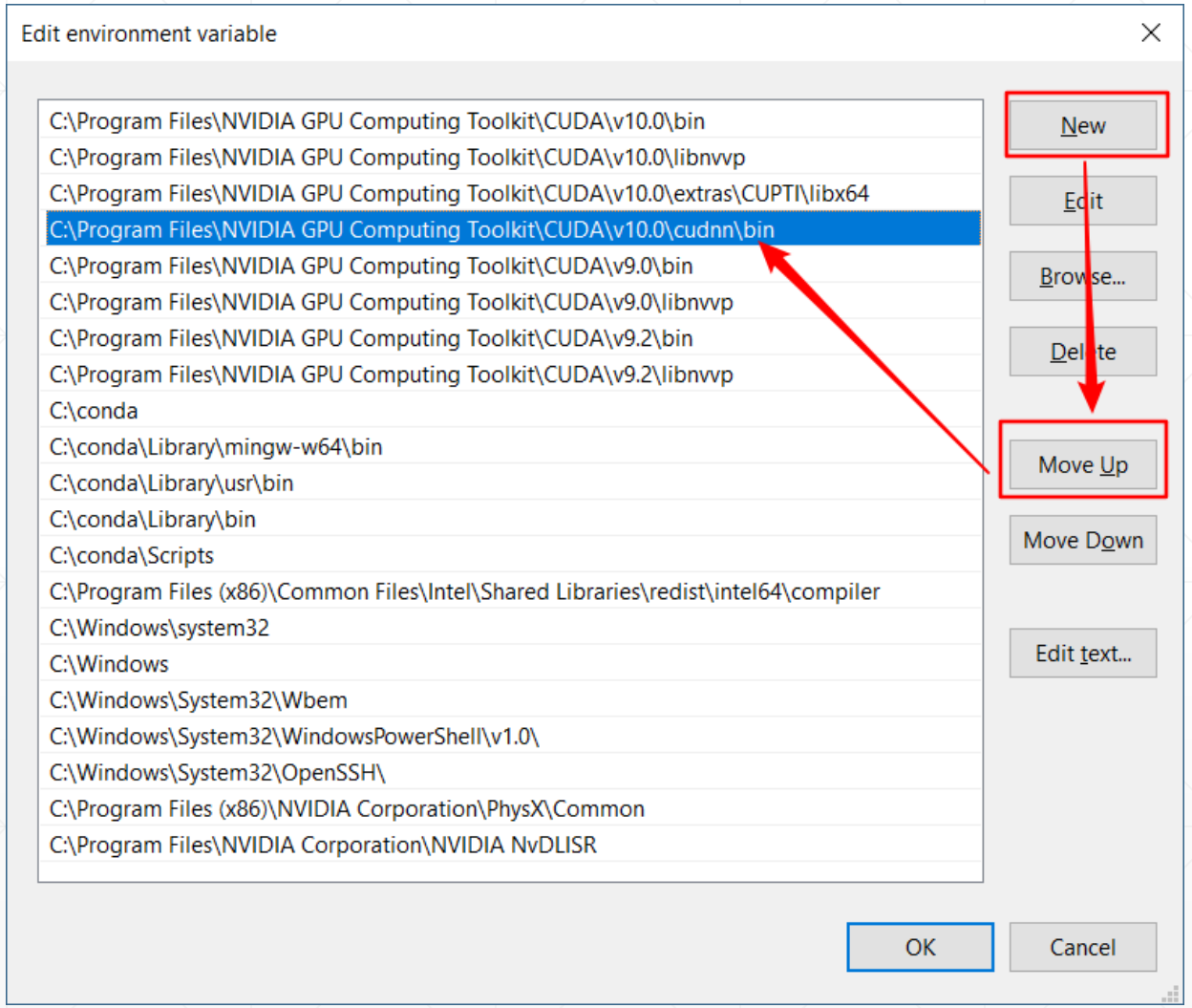
Step2.3.添加CUPTI路径

- 点击New增加条目
- 点击Move Up可上调行



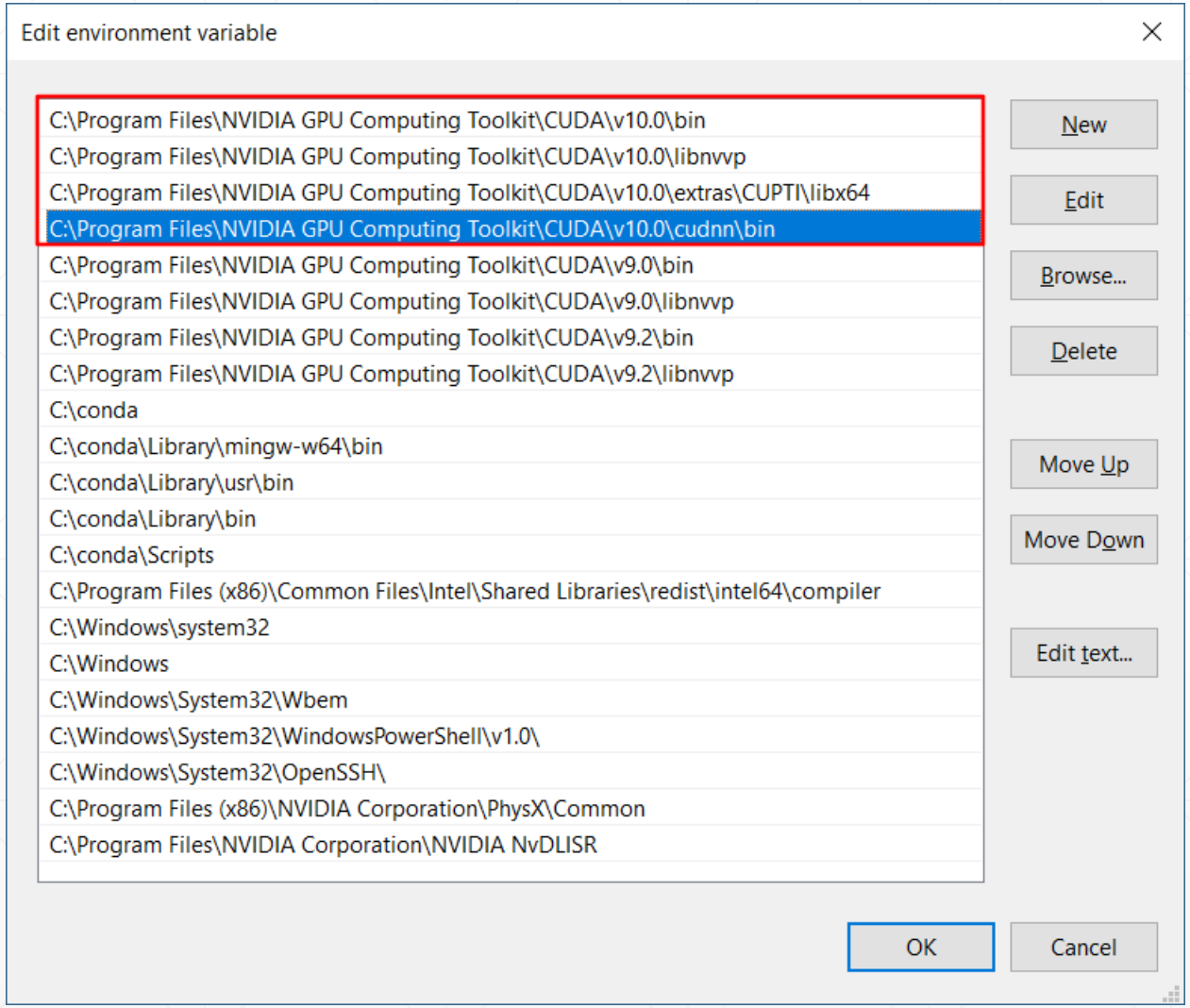
Step2.3.添加cuDNN路径

- 点击New增加条目
- 点击Move Up可上调行

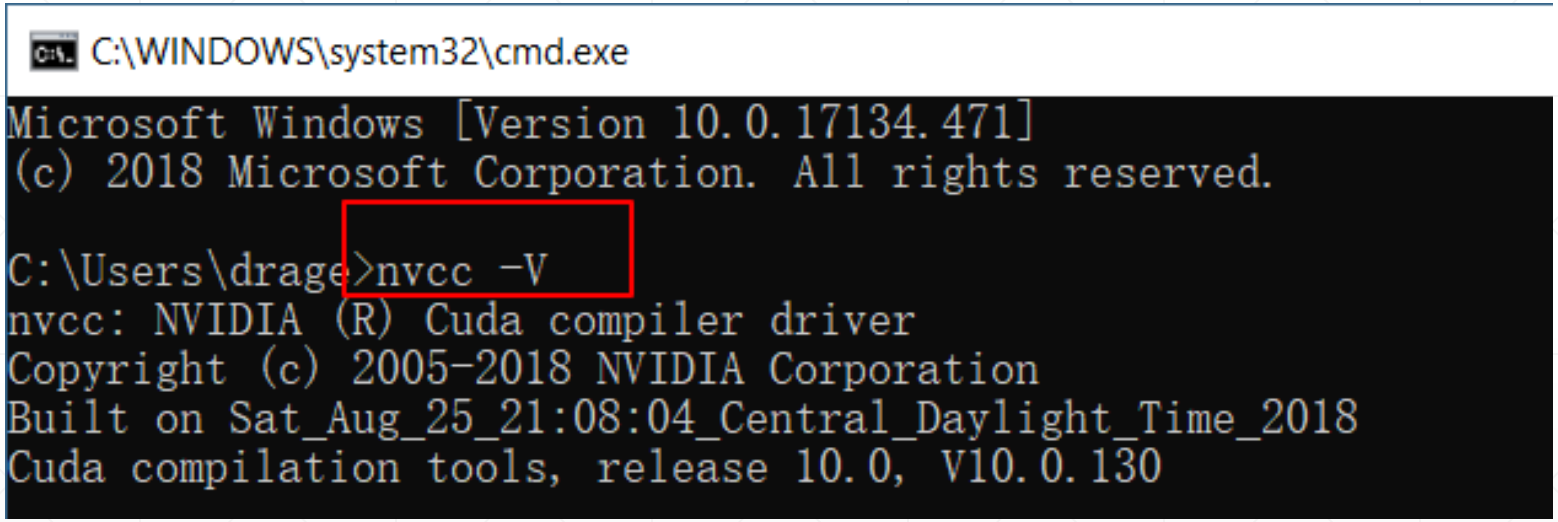


Step2.3.PATH变量确认

- 4行缺一不可
- 4行必须位于顶部



Step2.4.CUDA 测试



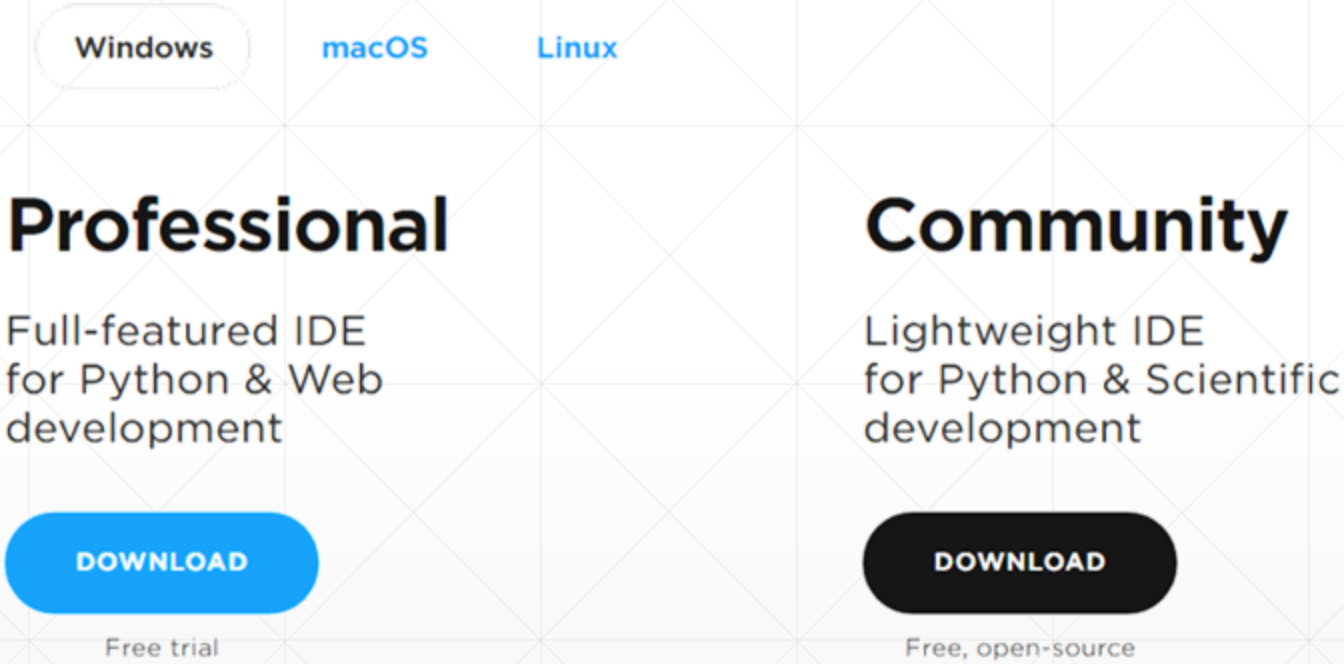
Step3.TensorFlow安装

```
# cpu version
pip install --upgrade tensorflow
# gpu version
pip install --upgrade tensorflow-gpu

# or install specific version
# cpu-version
pip install tensorflow==2.0.0-alpha0
# gpu-version
pip install tensorflow-gpu==2.0.0-alpha0
```

Step3.TensorFlow测试

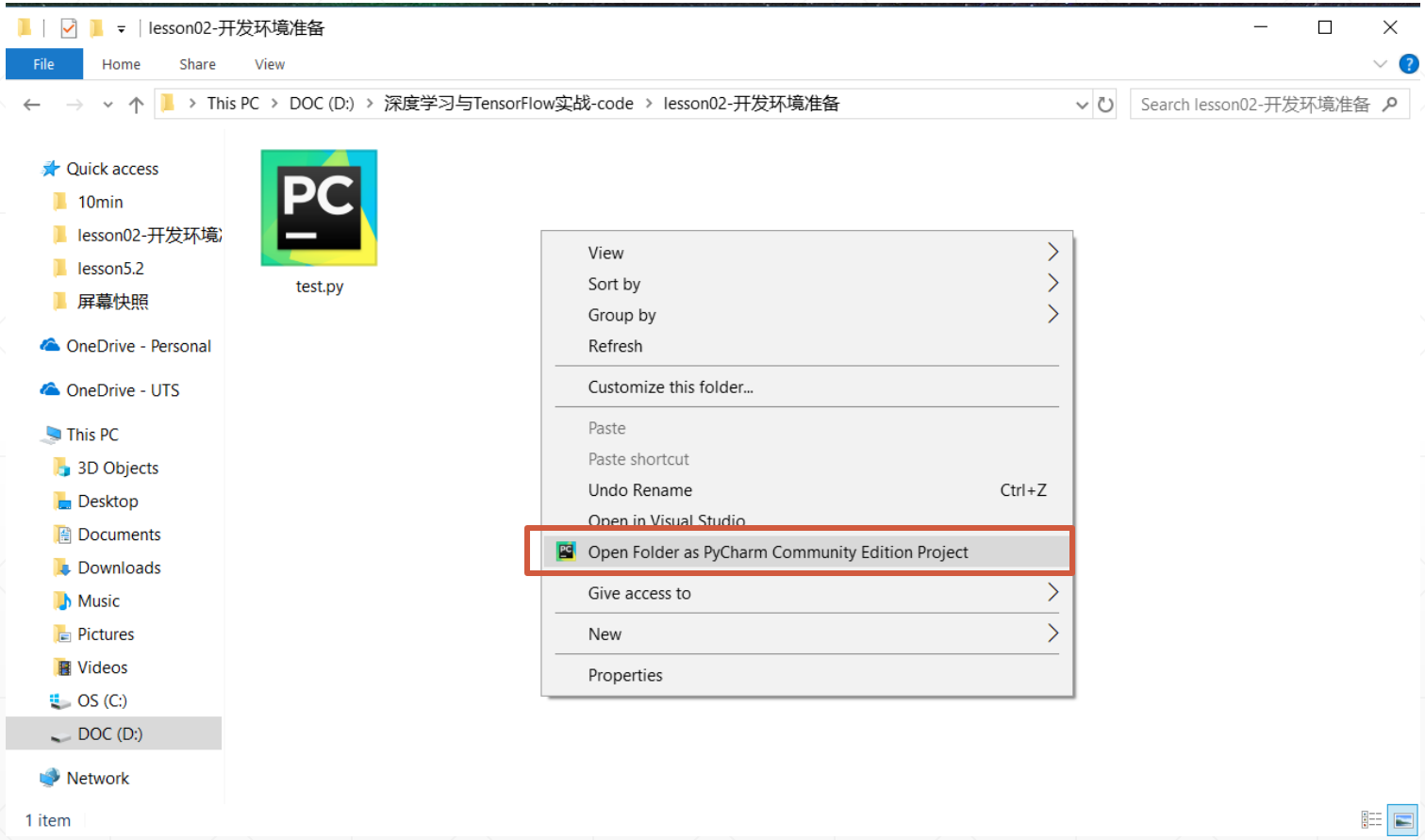
```
In [1]: import tensorflow as tf

In [2]: tf.constant(1.)+tf.constant(2.)
   ...
tensorflow/stream_executor/platform/default/dso_loader.cc:42] Successfully opened
dynamic library libcuda.so.1
2019-03-14 12:58:04.383277: I
name: GeForce GTX 1070 major: 6 minor: 1 memoryClockRate(GHz): 1.759
pciBusID: 0000:01:00.0
totalMemory: 7.93GiB freeMemory: 7.10GiB
Out[2]: <tf.Tensor: id=2, shape=(), dtype=float32, numpy=3.0>

In [5]: tf.test.is_gpu_available()
...
Out[5]: True
```

Step4.PyCharm安装



https://www.jetbrains.com/pycharm/download/#section=windows

Step4.PyCharm安装



Step4.PyCharm配置

下一课时

选看1：Win10安装过程手把手指导

选看2：Ubuntu安装过程手把手指导

必看：Lesson03

Thank You.