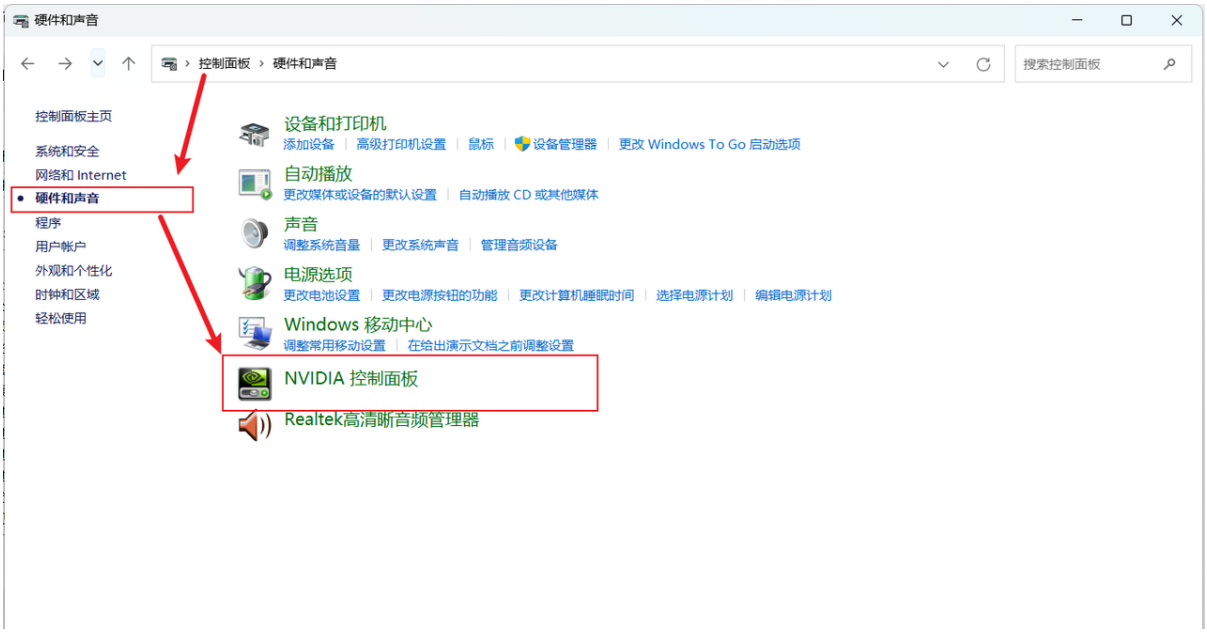
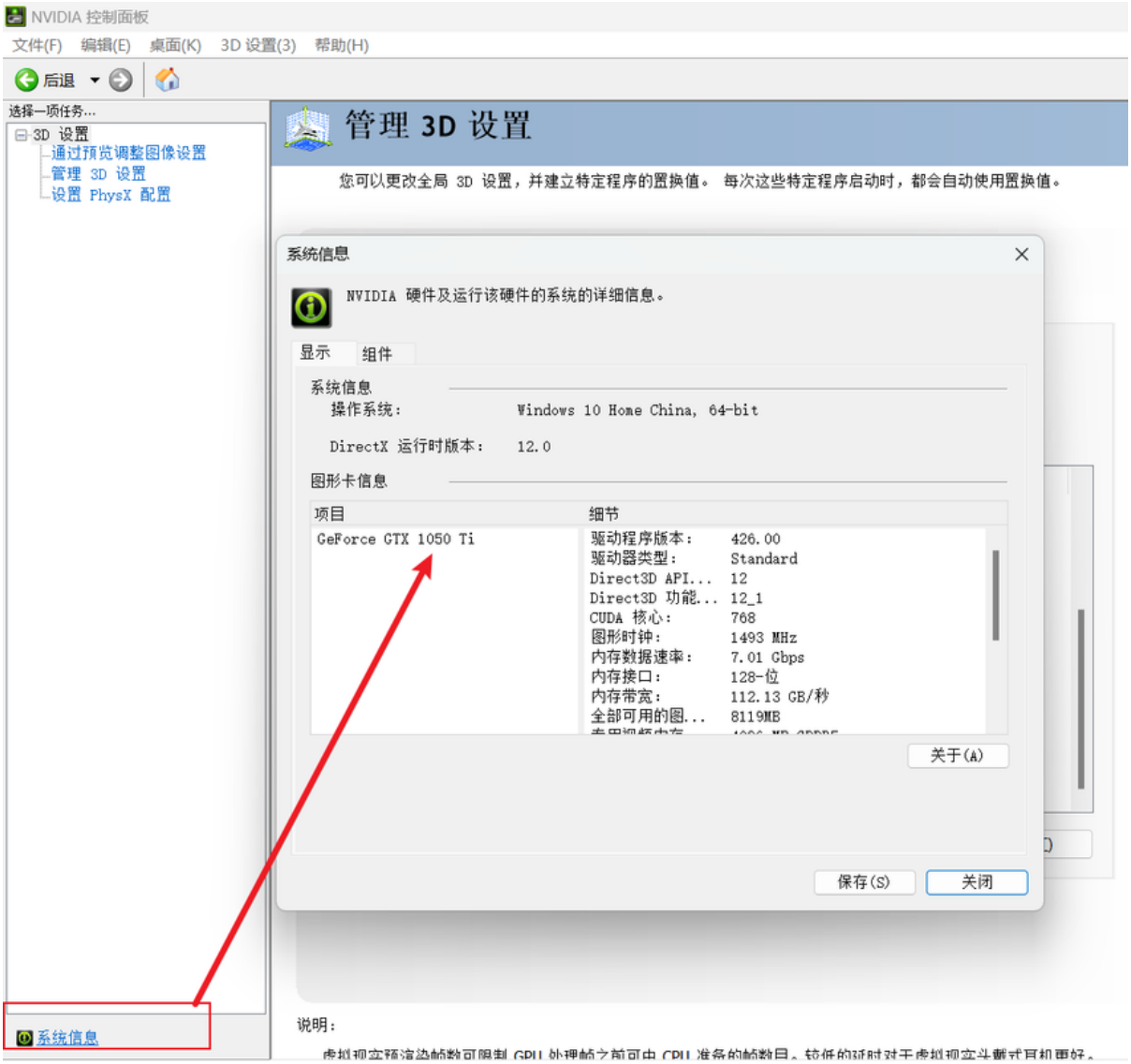
windows安装cuda教程

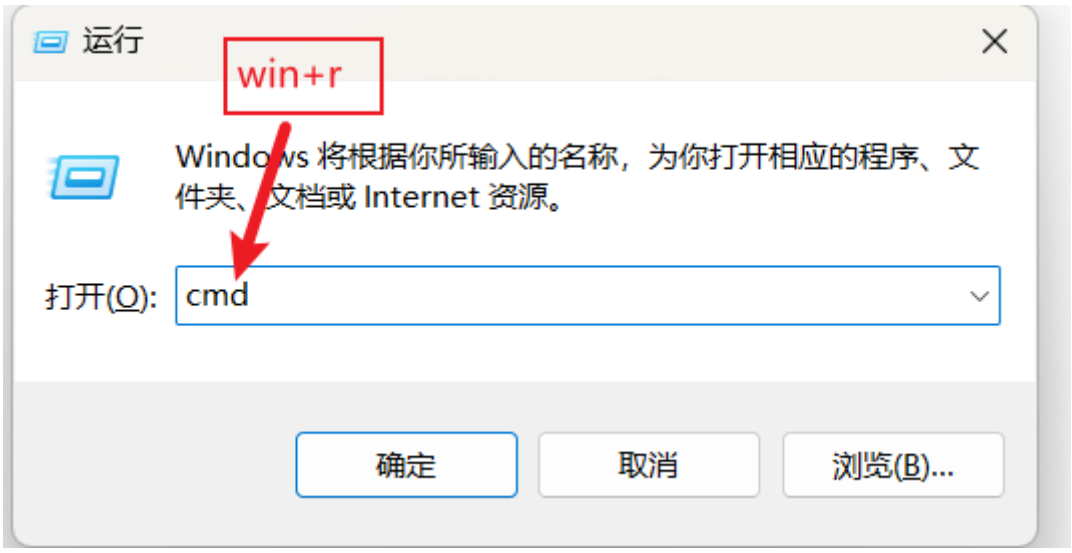
1. 查看是否安装NVIDIA显卡
    - 方法一:打开控制面板找到硬件与声音，然后找到nvidia控制面板



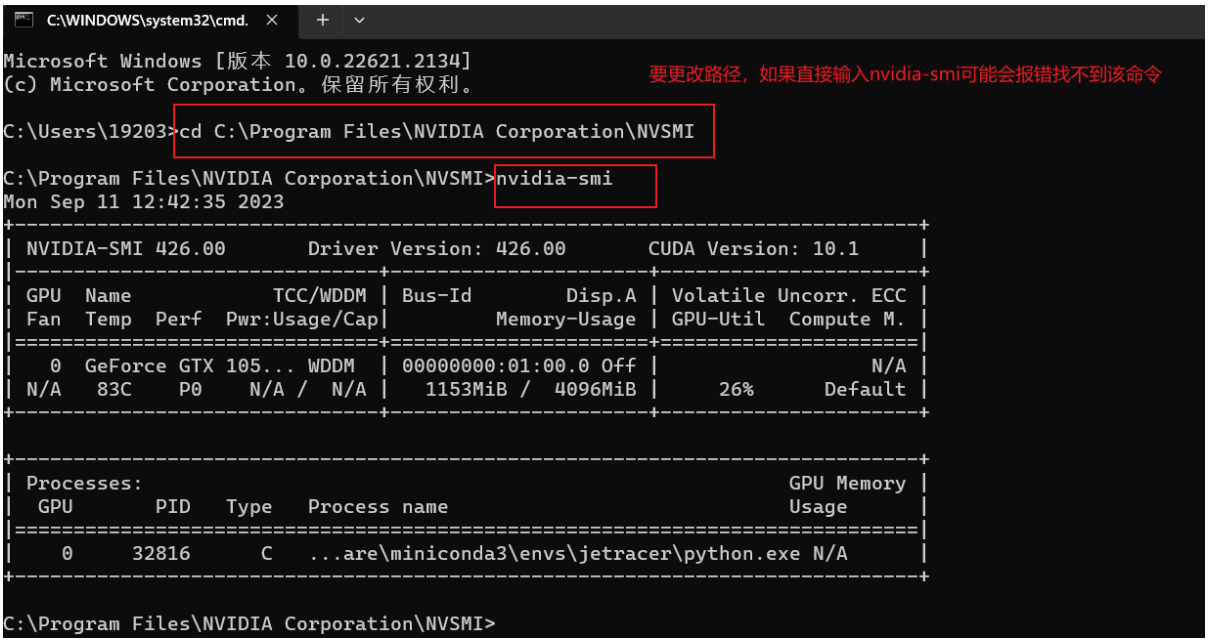
- 然后点击左下角系统信息，就能查看到gpu型号与驱动版本



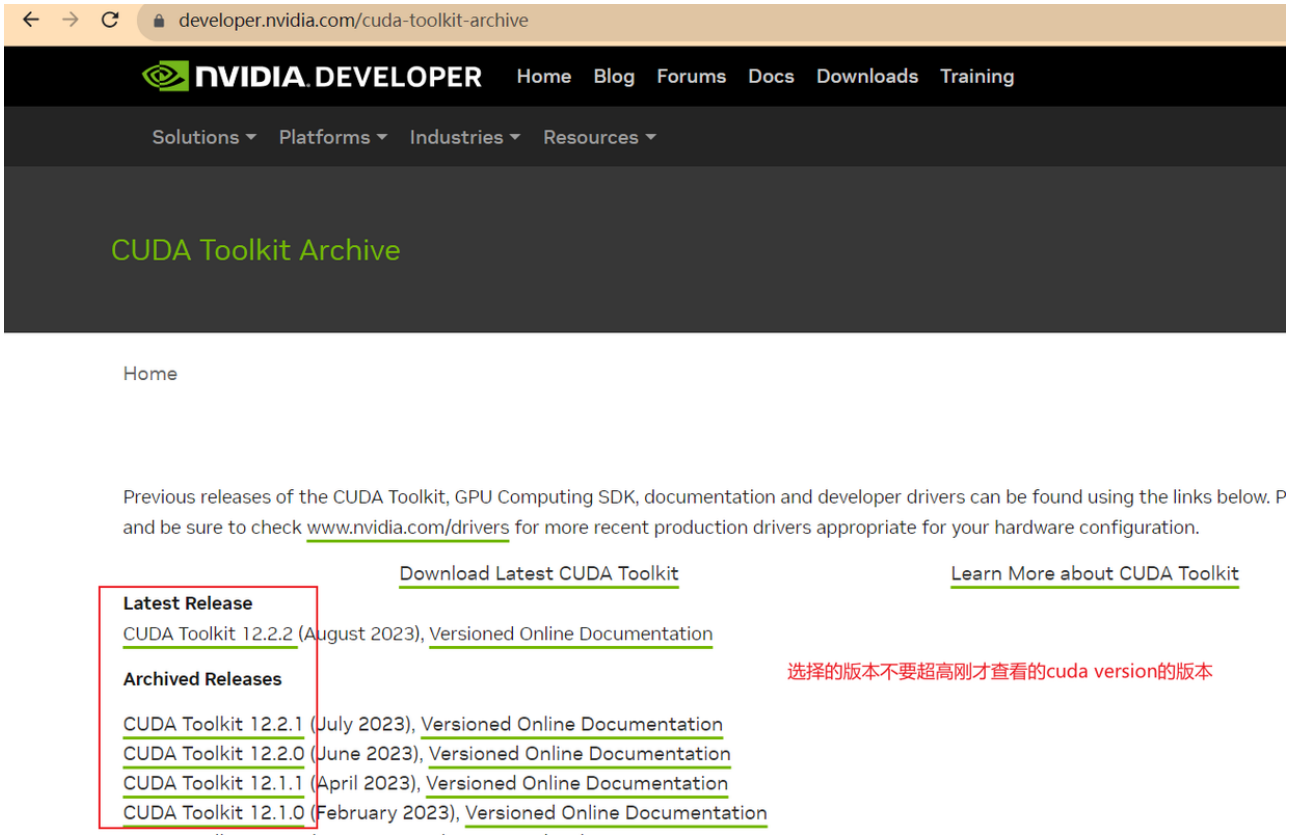
- 方法二:通过命令查找，首先用win+r,打开Windows系统的"运行"窗口



- 切换路径到C:\Program Files\NVIDIA Corporation\NVSMI，也可以搜索找到NVSMI这个文件夹，最后输入nvidia-smi，就会显示该电脑能够装的cuda version的最高版本。



2. 进入cuda toolkit官方下载界面https://developer.nvidia.com/cuda-toolkit-archive



Home

Previous releases of the CUDA Toolkit, GPU Computing SDK, documentation and developer drivers can be found using the links below. P
and be sure to check www.nvidia.com/drivers for more recent production drivers appropriate for your hardware configuration.

Download Latest CUDA Toolkit　　Learn More about CUDA Toolkit

Latest Release

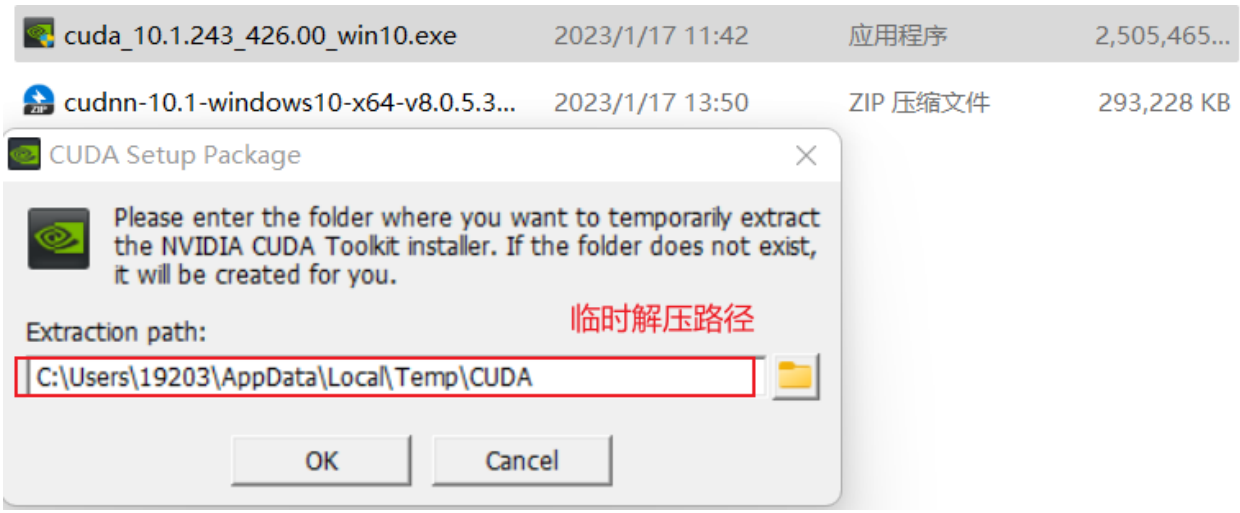
CUDA Toolkit 12.2.2 (August 2023), Versioned Online Documentation

选择的版本不要超高刚才查看的cuda version的版本

Archived Releases

CUDA Toolkit 12.2.1 (July 2023), Versioned Online Documentation
CUDA Toolkit 12.2.0 (June 2023), Versioned Online Documentation
CUDA Toolkit 12.1.1 (April 2023), Versioned Online Documentation
CUDA Toolkit 12.1.0 (February 2023), Versioned Online Documentation

3. 将下载好的文件解压，根据图片操作。 临时解压路径可以不更改



点击同意并继续

选择自定义安装

将第二个不要勾选

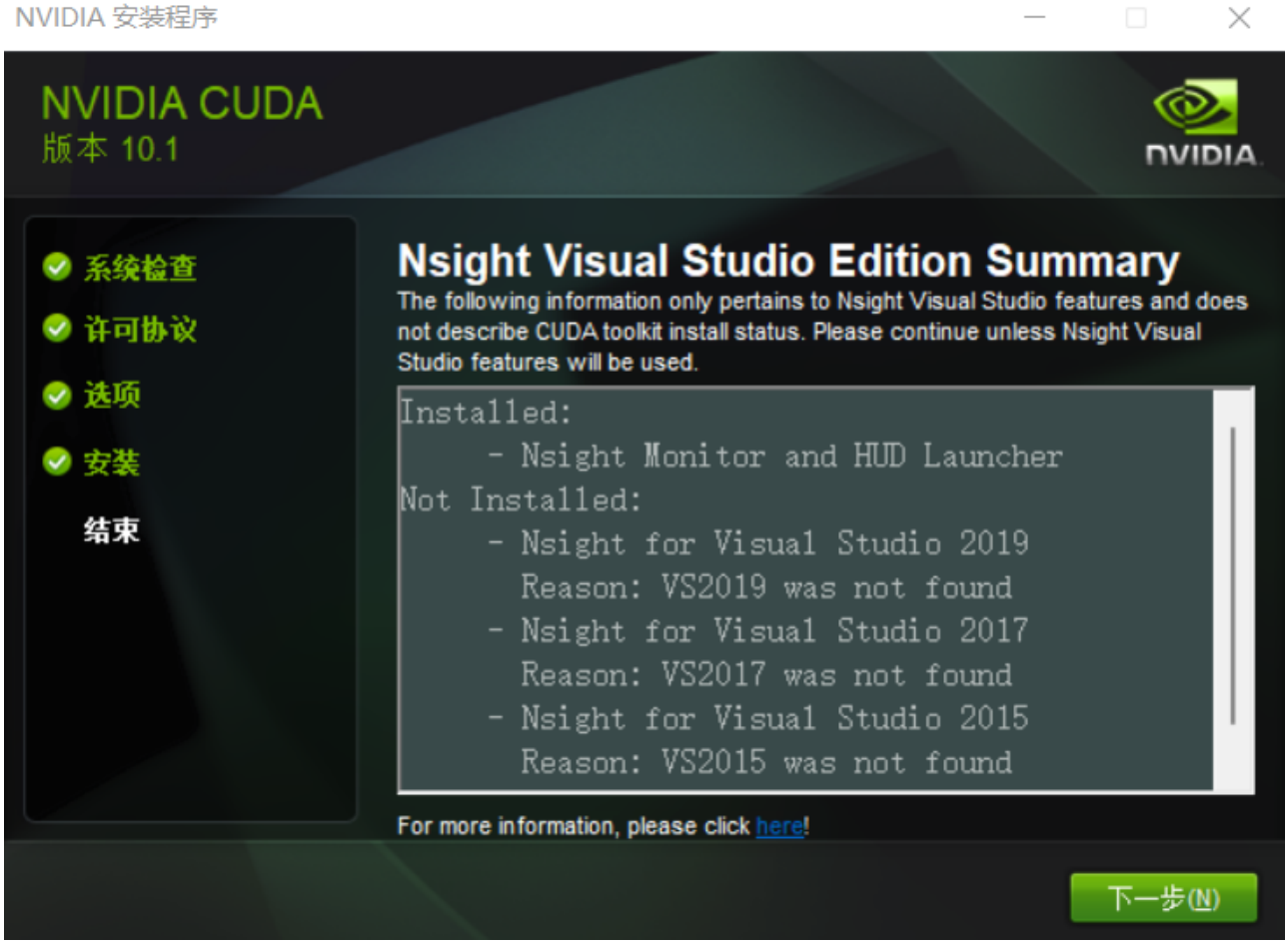
如果电脑没有安装visual studio就不要勾选

要记住这三个的安装位置，可以提前截图保留，后续配置环境变量时需要，可以根据自己需求更改安装位置，在这里我们将其改到D盘。

如果报没有支持的vs,可以勾选后next


NVIDIA CUDA
版本 10.1
NVIDIA
系统检查
许可协议
选项
安装
结束
CUDA Visual Studio Integration
No supported version of Visual Studio was found. Some components of the CUDA Toolkit will not work properly. Please install Visual Studio first to get the full functionality.
I understand, and wish to continue the installation regardless.
后退(B)
NEXT
取消(C)

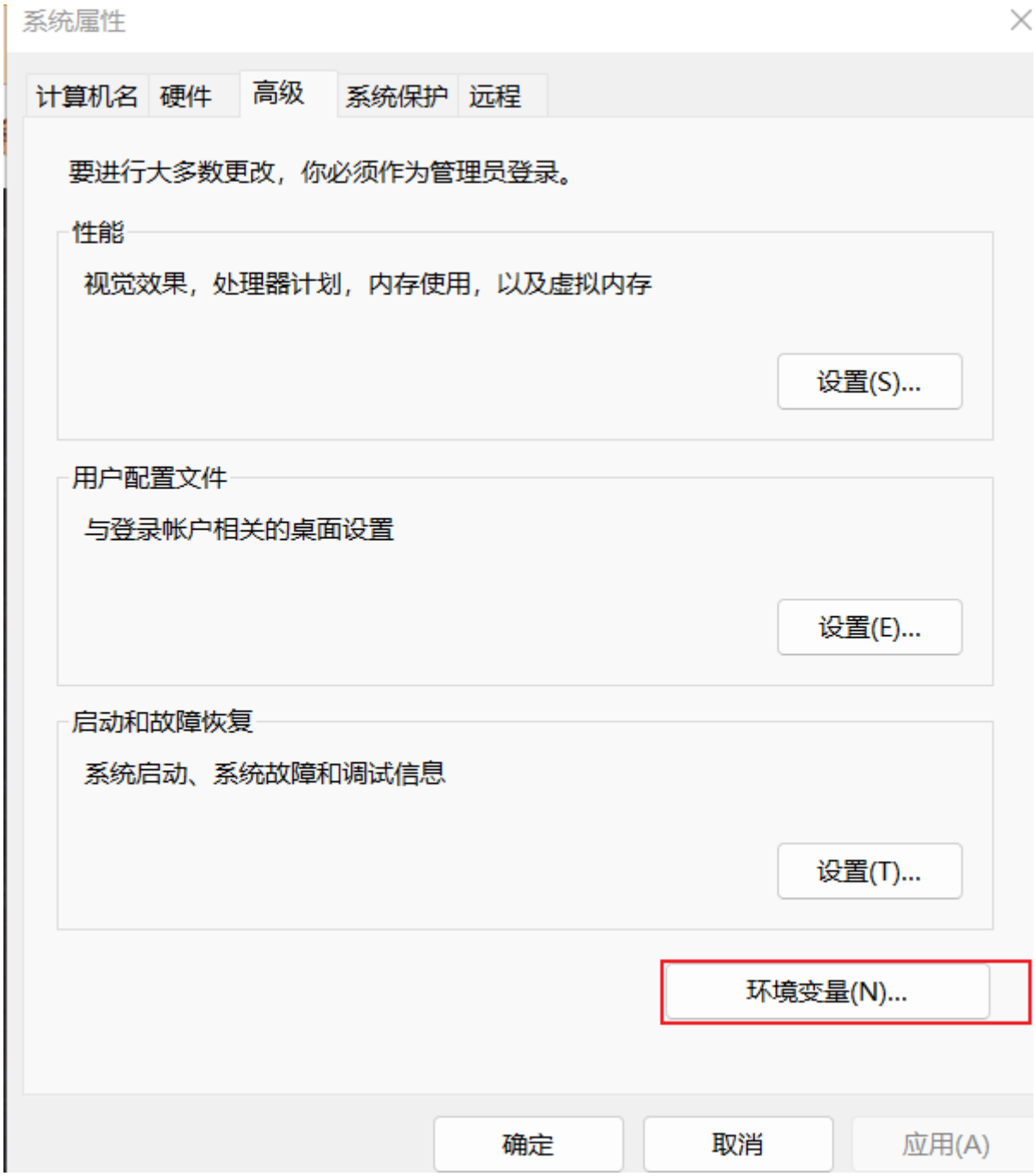
点击下一步


NVIDIA 安装程序
NVIDIA CUDA
版本 10.1
NVIDIA
系统检查
许可协议
选项
安装
结束
Nsight Visual Studio Edition Summary
The following information only pertains to Nsight Visual Studio features and does not describe CUDA toolkit install status. Please continue unless Nsight Visual Studio features will be used.
Installed:
- Nsight Monitor and HUD Launcher
Not Installed:
- Nsight for Visual Studio 2019
Reason: VS2019 was not found
- Nsight for Visual Studio 2017
Reason: VS2017 was not found
- Nsight for Visual Studio 2015
Reason: VS2015 was not found
For more information, please click here!
下一步(N)

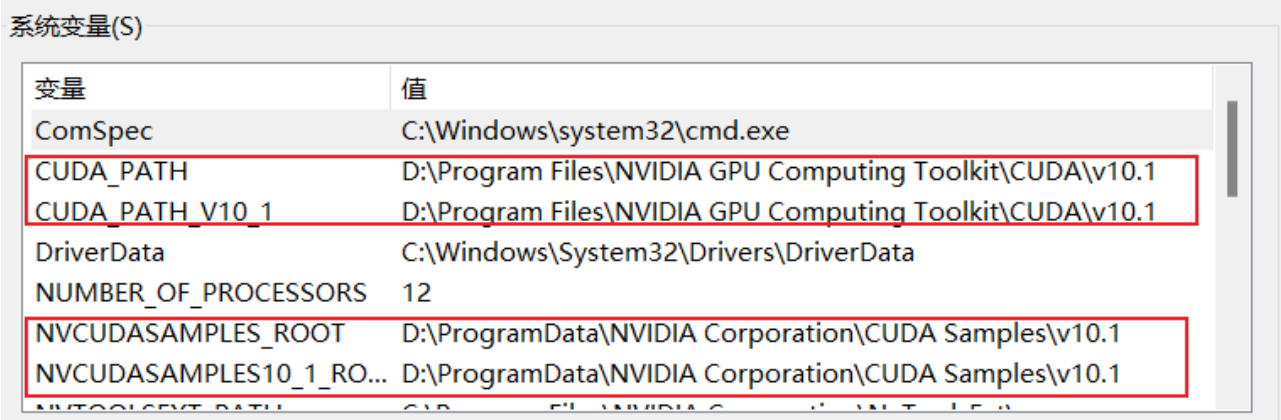
检查组件状态，到此安装部分结束，点击关闭

4. 配置cuda的环境变量，使用搜索命令，搜索查看高级系统设置，点击打开

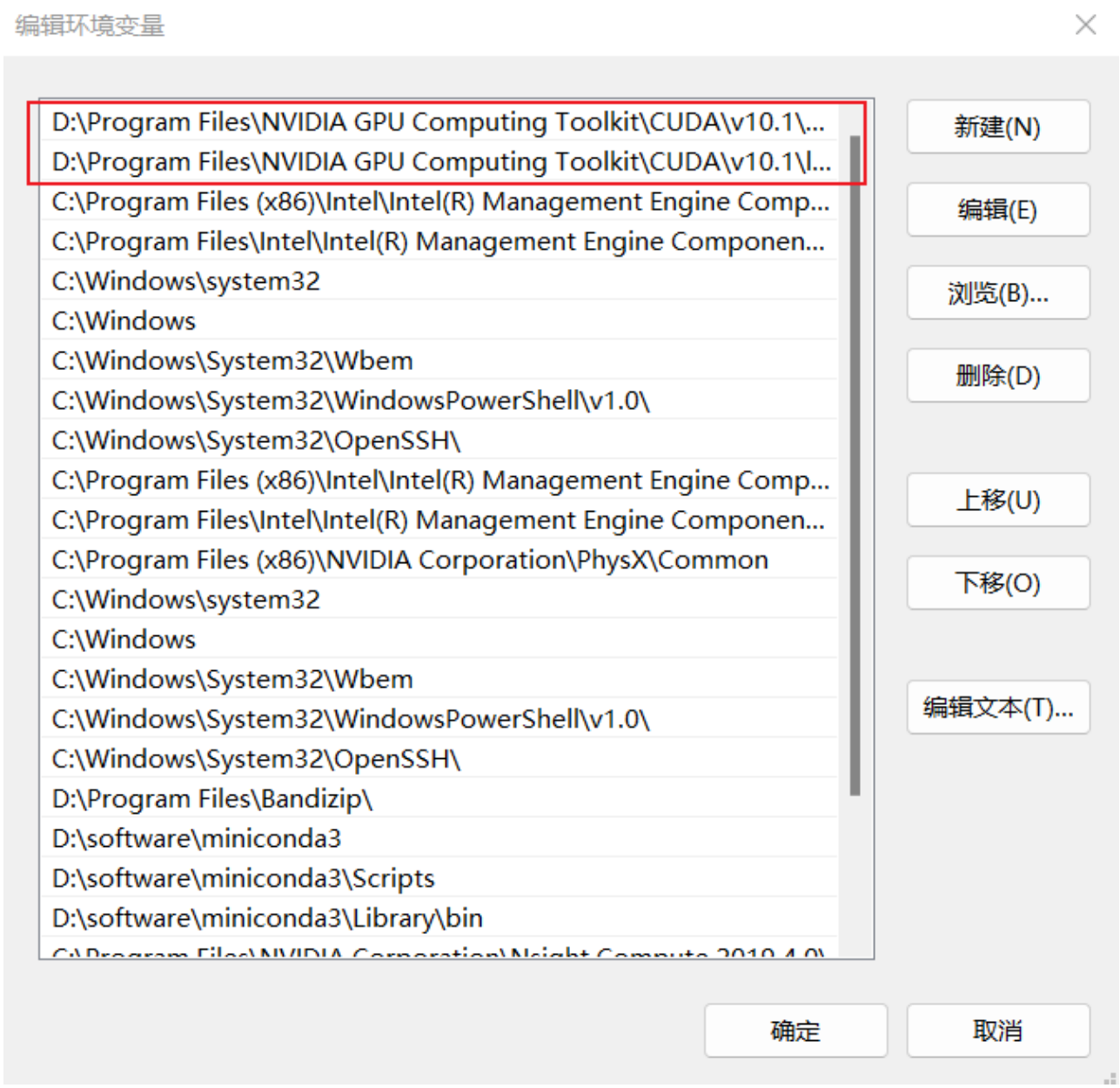
点击环境变量

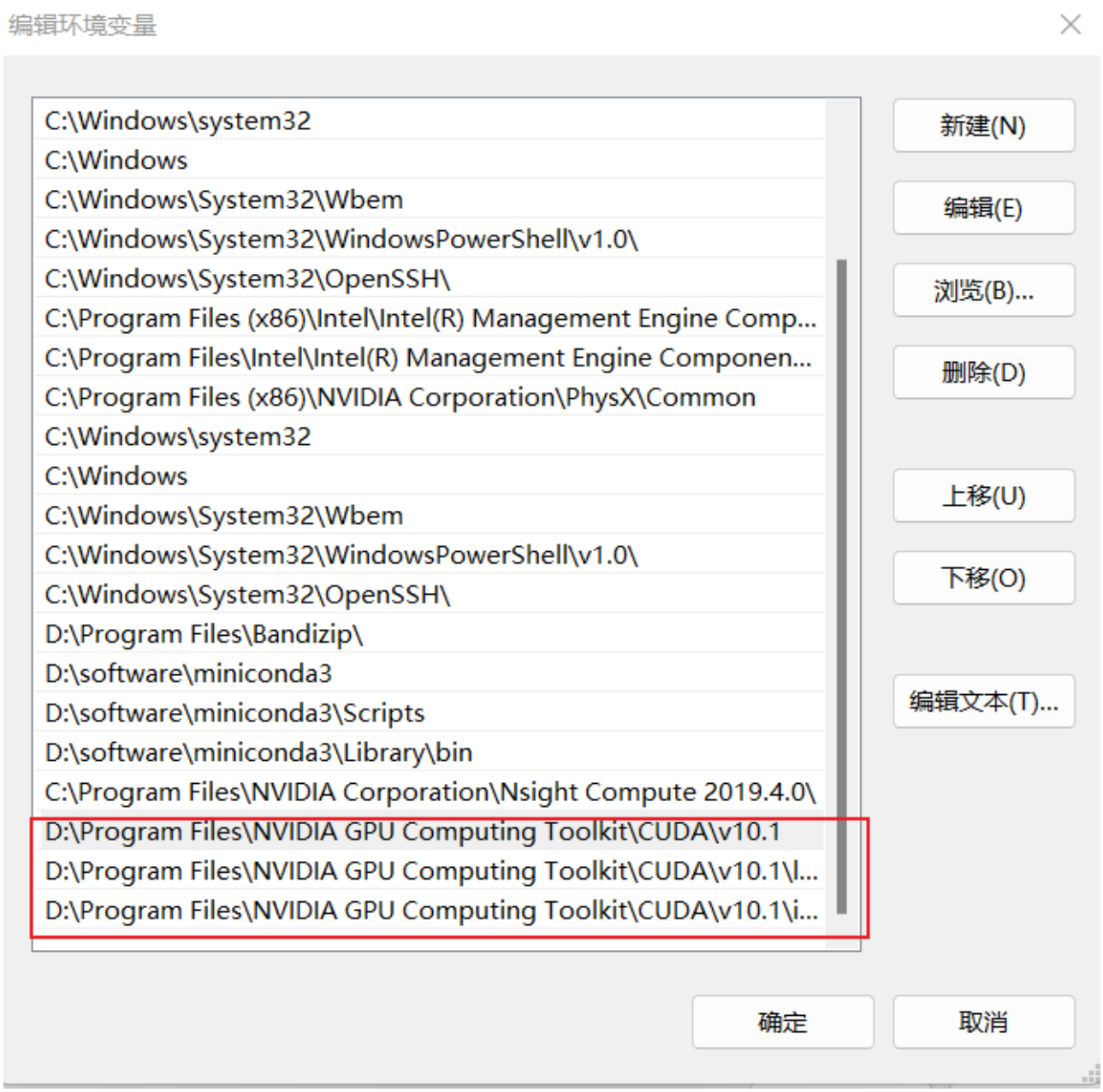


会看到系统变量，查看是否存在CUDA的环境变量，如果没有，则添加刚才截图的内容，就是刚才安装CUDA的位置；如果已经存在环境变量，则不用添加。



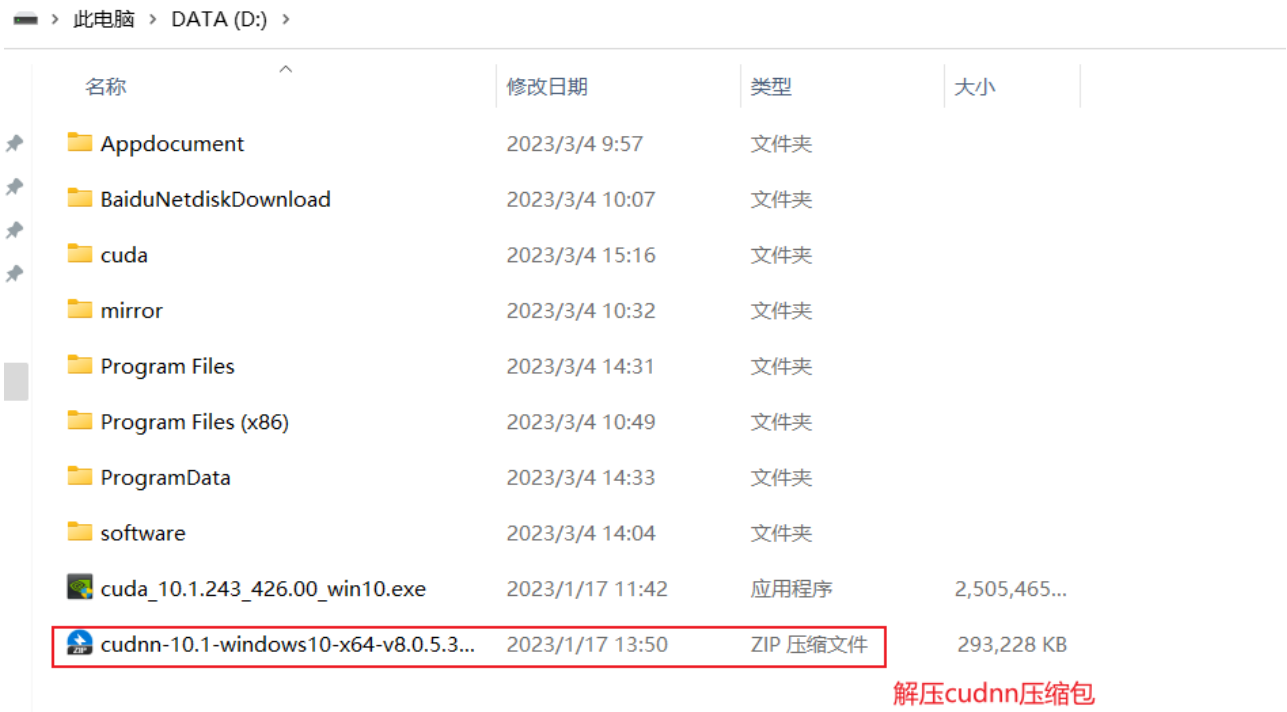
点击系统变量的右下角的编辑，添加环境变量


编辑环境变量
D:\Program Files\NVIDIA GPU Computing Toolkit\CUDA\v10.1\...
D:\Program Files\NVIDIA GPU Computing Toolkit\CUDA\v10.1\l...
C:\Program Files (x86)\Intel\Intel(R) Management Engine Comp...
C:\Program Files\Intel\Intel(R) Management Engine Componen...
C:\Windows\system32
C:\Windows
C:\Windows\System32\Wbem
C:\Windows\System32\WindowsPowerShell\v1.0\
C:\Windows\System32\OpenSSH\
C:\Program Files (x86)\Intel\Intel(R) Management Engine Comp...
C:\Program Files\Intel\Intel(R) Management Engine Componen...
C:\Program Files (x86)\NVIDIA Corporation\PhysX\Common
C:\Windows\system32
C:\Windows
C:\Windows\System32\Wbem
C:\Windows\System32\WindowsPowerShell\v1.0\
C:\Windows\System32\OpenSSH\
D:\Program Files\Bandizip\
D:\software\miniconda3
D:\software\miniconda3\Scripts
D:\software\miniconda3\Library\bin
新建(N)
编辑(E)
浏览(B)...
删除(D)
上移(U)
下移(O)
编辑文本(T)...
确定
取消

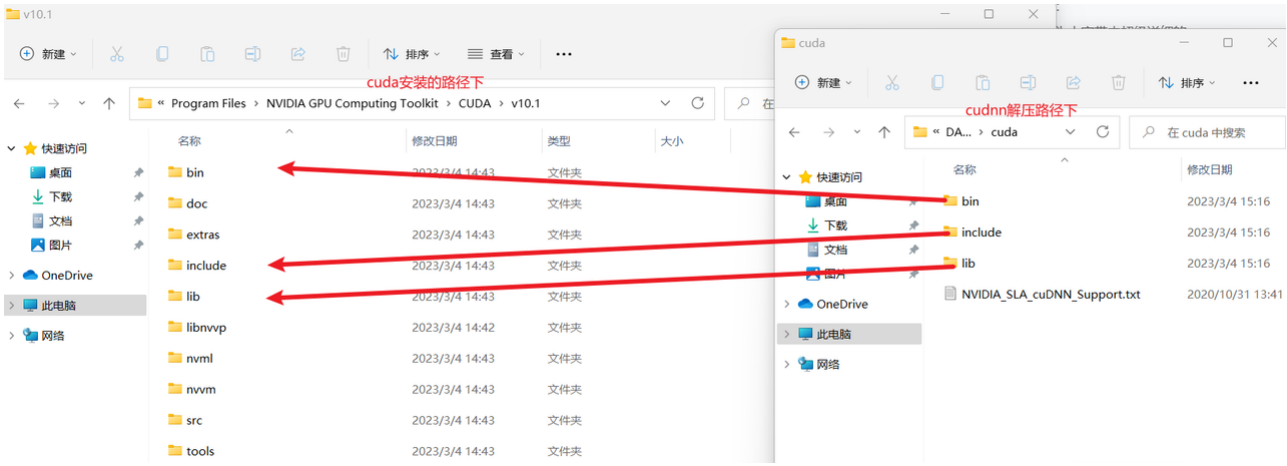


5. 安装cudnn,登录官网https://developer.nvidia.com/rdp/cudnn-archive

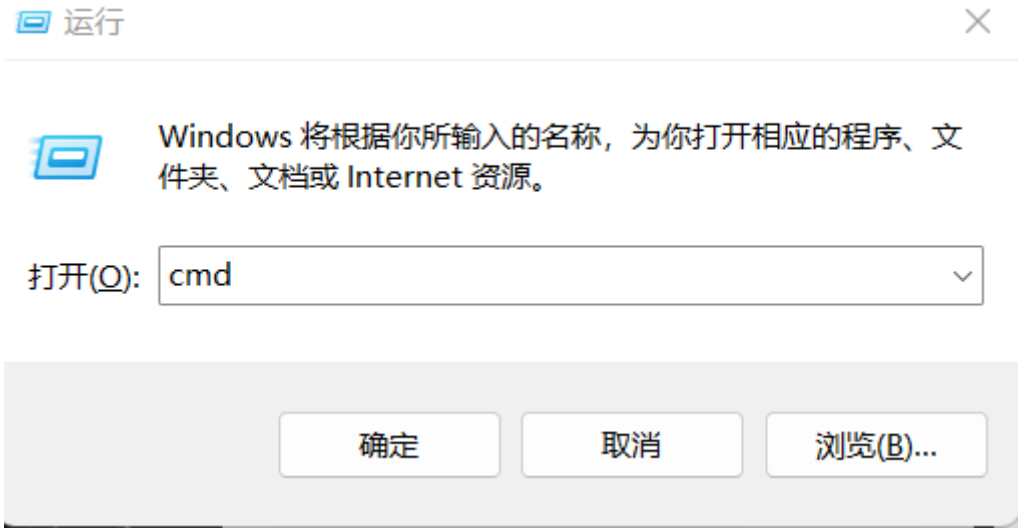
解压cudnn压缩包



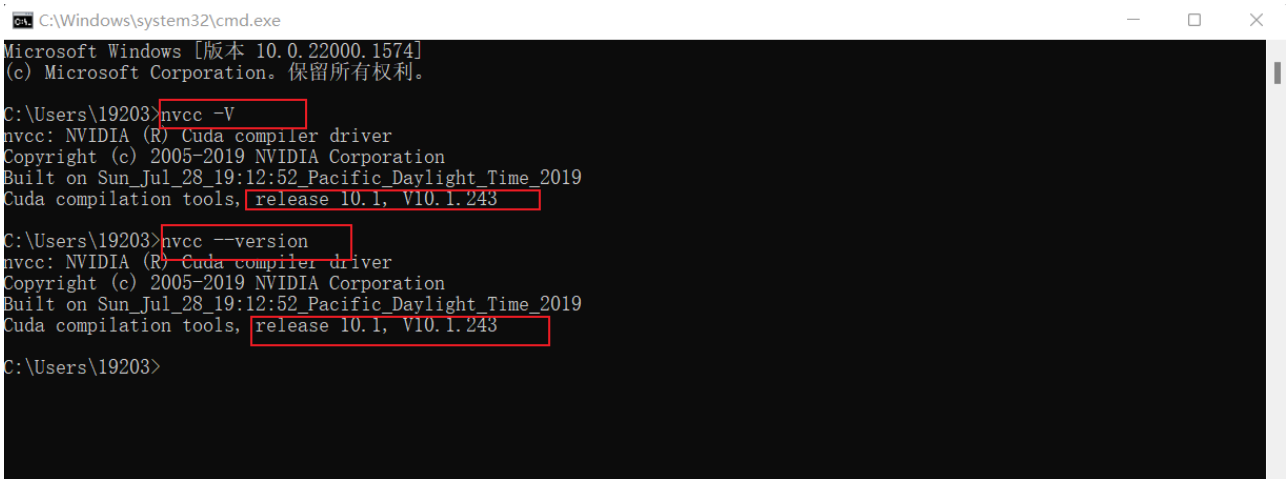
将cudnn里的文件与刚才安装cuda里的文件进行替换

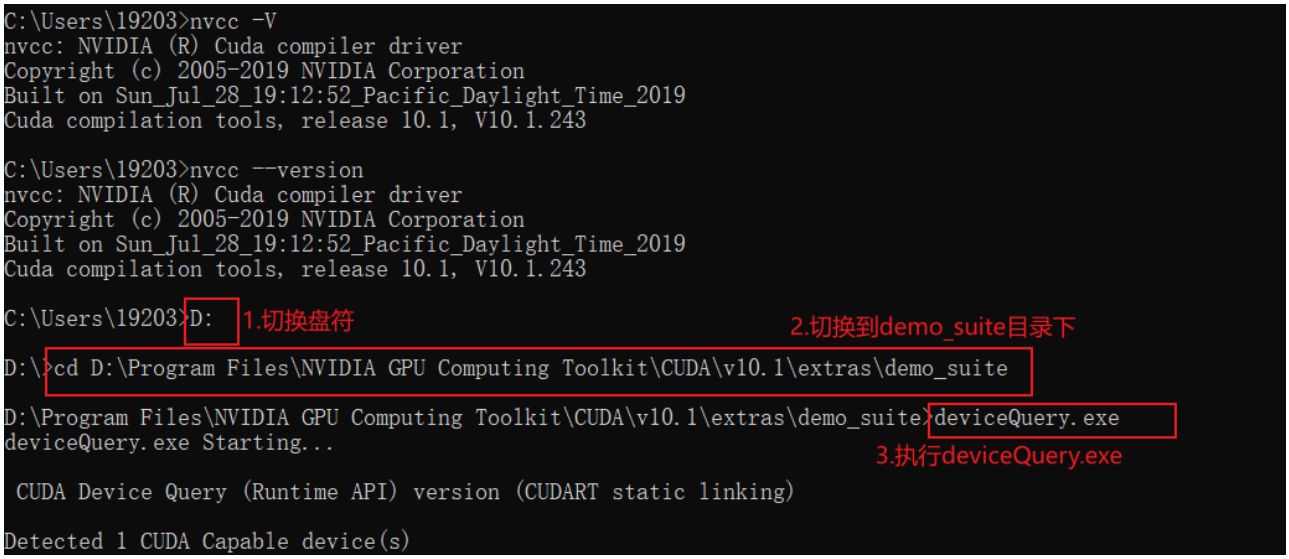


6. 检查是否安装成功，使用cmd进入控制面板

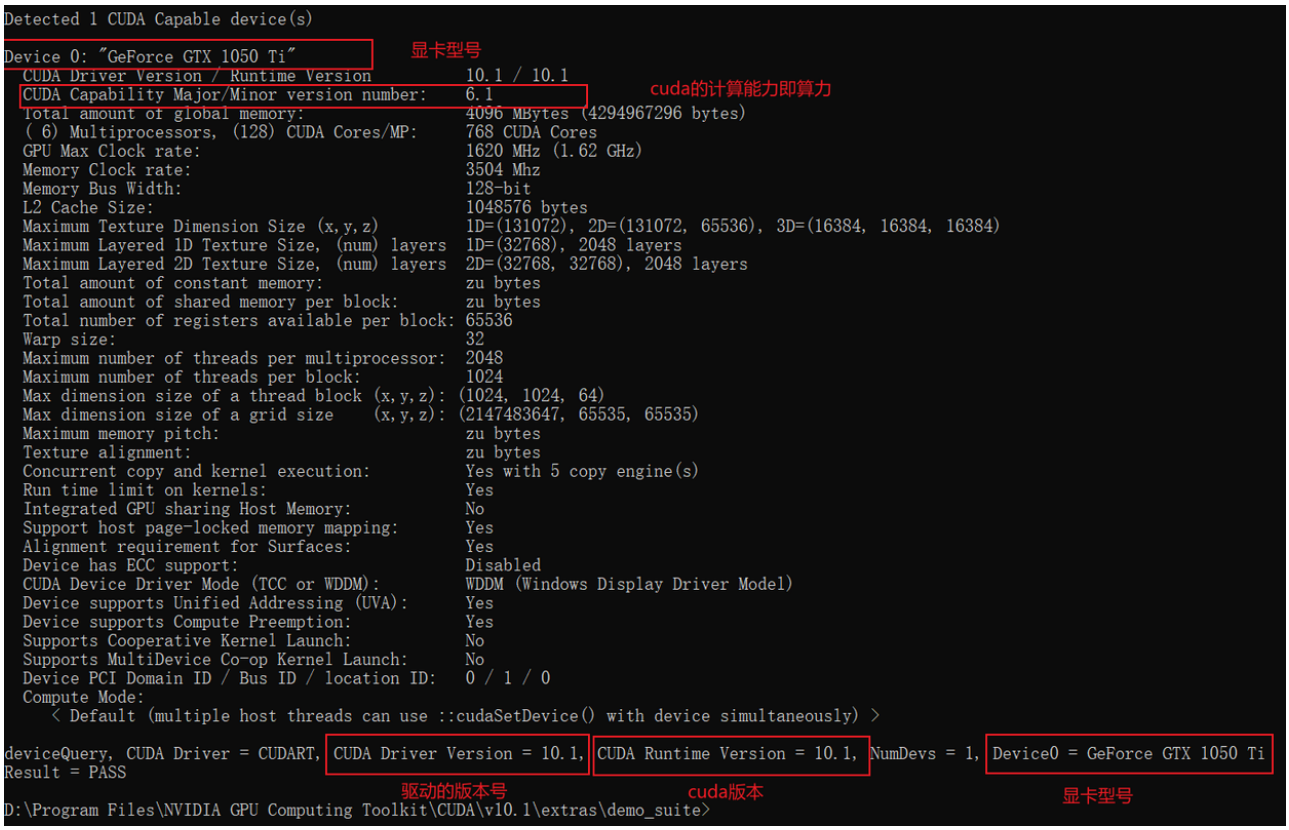


输入nvcc -V,显示cuda的版本即安装成功





检查是否出现了PASS，若出现了PASS，则表示运行成功



检查是否出现了PASS，若出现了PASS，则表示运行成功