[https://medium.com/analytics-vidhya/how-to-set-up-tensorflow-gpu-on-ubuntu-18-04-lts-7a09ffd5f30f#564e](https://medium.com/analytics-vidhya/how-to-set-up-tensorflow-gpu-on-ubuntu-18-04-lts-7a09ffd5f30f" \l "564e)

<https://stackoverflow.com/questions/55224016/importerror-libcublas-so-10-0-cannot-open-shared-object-file-no-such-file-or>

<https://gist.github.com/Mahedi-61/2a2f1579d4271717d421065168ce6a73>

<https://stackoverflow.com/questions/55224016/importerror-libcublas-so-10-0-cannot-open-shared-object-file-no-such-file-or>

Remove CUDA Toolkit:

$ sudo apt-get --purge remove "\*cublas\*" "\*cufft\*" "\*curand\*" \

"\*cusolver\*" "\*cusparse\*" "\*npp\*" "\*nvjpeg\*" "cuda\*" "nsight\*"

Remove NVIDIA Drivers:

$ sudo apt-get --purge remove "\*nvidia\*"

Clean up the uninstall:

$ sudo apt-get autoremove

Check Ubuntu NVIDIA drivers

Go to software& Updates -> Additional Drivers -> select the driver

Install NVIDIA driver

$ sudo apt install nvidia-driver-460

$ sudo apt install nvidia-utils-460

$ reboot

$ nvidia-smi

Check Tensorflow GPU support [https://www.tensorflow.org/install/source#gpu\_support\_2](https://www.tensorflow.org/install/source" \l "gpu_support_2)

Upgrade pip

$ pip install --upgrade pip

Install tensorflow-gpu 2.3.0, require CUDA 10.1, cuDNN 7.6.5

$ pip3 install tensorflow-gpu==2.3.0

Install cuda 10.1

<https://developer.nvidia.com/cuda-10.1-download-archive-base?target_os=Linux&target_arch=x86_64&target_distro=Ubuntu&target_version=1804&target_type=deblocal>

Ubuntu20.04 can istall cuda 10.1 by using:

$ sudo apt install nvidia-cuda-toolkit

$ reboot

Check CUDA installation folder

$ whereis cuda

$ nvcc -V

$ cat /usr/lib/cuda/version.txt

Download cudnn 7.6.5 for CUDA 10.1 <https://developer.nvidia.com/rdp/cudnn-archive>

$ tar -xvzf cudnn-10.1-linux-x64-v7.6.5.32.tgz

Copy the extracted files to the CUDA installation folder/directory

$ sudo cp cuda/include/cudnn.h /usr/lib/cuda/include/

$ sudo cp cuda/lib64/libcudnn\* /usr/lib/cuda/lib64/

Set the file permissions of cuDNN,

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

$ reboot

Export CUDA environment variables

The CUDA environment variables are needed by TensorFlow for GPU support. To set them, we need to append them to ~/.bashrc file

$ echo 'export PATH=/usr/local/cuda-10.1/bin${PATH:+:${PATH}}' >> ~/.bashrc

$ echo 'export LD\_LIBRARY\_PATH=/usr/local/cuda-10.1/lib64:${LD\_LIBRARY\_PATH:+:${LD\_LIBRARY\_PATH}}' >> ~/.bashrc

$ echo 'export LD\_LIBRARY\_PATH=/usr/lib/cuda/lib64:$LD\_LIBRARY\_PATH' >> ~/.bashrc

$ echo 'export LD\_LIBRARY\_PATH=/usr/lib/cuda/include:$LD\_LIBRARY\_PATH' >> ~/.bashrc

Load the exported environment variables by running,

$ source ~/.bashrc

$ python3 -c "import tensorflow as tf; tf.config.list\_physical\_devices('GPU');"

$ python3 -c "import tensorflow as tf; tf.test.is\_gpu\_available();"

Install PyTorch

$ pip3 install torch torchvision torchaudio

$ python3 -c "import torch; print(torch.cuda.is\_available());"

$ python3 -c "import torch; print(torch.cuda.device\_count());”

$ python3 -c "import torch; print(torch.cuda.get\_device\_name(0));”