ขั้นตอนการติดตั้งโปรแกรม keras/tensorflow/gpu/python

GPU support | TensorFlow

https://www.tensorflow.org/install/gpu

Software requirements

The following NVIDIA® software must be installed on your system:

- NVIDIA® GPU drivers —CUDA® 11.0 requires 450.x or higher.

  Don't install (uninstall) if cudart. Err

  - NVIDIA Frameview SDK
  - NVIDIA PhysX
- CUDA® Toolkit —TensorFlow supports CUDA® 11 (TensorFlow >= 2.4.0)

  Install CUDA Toolkit 11.1.0 (That can support Keras & Pytorch)

  https://developer.nvidia.com/cuda-toolkit-archive
- CUPTI ships with the CUDA® Toolkit.
- cuDNN SDK 8.1.0 cuDNN versions).

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

  cuDNN Library for Windows (x86)

  extract file cuDNN and copy file to

  ProgramData in cudaToolkit/vx.x

  .dll -> bin

  .lib -> lib

  .h -> include
- *(Optional)* TensorRT 6.0 to improve latency and throughput for inference on some models.

3.Install Keras, please check compatible s/w version

- Python 3.5-3.8 (This 3.8.10)

pip install -U package-name

package should install (scipy, numpy, matplotlib, pandas, jupyterlab, scikit-learn, opencv, Pillow, pytorch)

- TensorFlow 2

https://www.tensorflow.org/install/pip

Python 3.8 GPU support and download from

https://storage.googleapis.com/tensorflow/windows/gpu/tensorflow_gpu-2.5.0-cp38-cp38-win_amd64.whl

install by

pip install -U path_of_wheel/ tensorflow_gpu-2.5.0-cp38-cp38-win_amd64.whl

- keras

pip install -U keras

- opencv contribute

pip install -U opencv-contrib-python

- Pillow

https://pypi.org/project/Pillow/

pip install -U Pillow

- pytorch

https://pytorch.org/

pip3 install torch==1.9.0+cu111 torchvision==0.10.0+cu111 torchaudio===0.9.0 -f https://download.pytorch.org/whl/torch_stable.html