

Docker for Tensorflow2.x and Cuda Toolkit

1. 安裝 docker for tensorflow-gpu

`docker pull tensorflow/tensorflow: 2.6.0-gpu`

到[這頁](#)找版本

2. 安裝 docker for Cuda toolkit

`sudo apt-get install -y nvidia-docker2`

`sudo systemctl restart docker`

`sudo docker run --rm --gpus all nvidia/cuda: 11.4.0-base-ubuntu18.04 nvidia-smi`

到[這頁](#)找版本

成功會出現

```

Thu Jul 7 13:52:42 2022
+-----+
| NVIDIA-SMI 470.103.01   Driver Version: 470.103.01   CUDA Version: 11.4   |
+-----+
| GPU   Name               Persistence-M| Bus-Id        Disp.A | Volatile Uncorr. ECC |
| Fan  Temp  Perf    Pwr:Usage/Cap|      Memory-Usage | GPU-Util  Compute M. |
|=====  

|    0  NVIDIA GeForce ...  Off      | 00000000:68:00:0 Off  |          N/A         |
| 17%   33C   P8       4W / 175W   | 271MiB / 7979MiB |      1%      Default |
|=====+-----+=====+-----+
|
+-----+
| Processes:
| GPU   GI    CI          PID    Type   Process name                      GPU Memory
|      ID    ID              |          |                      |      Usage
|=====+-----+=====+-----+
|    0   N/A   N/A       1236     G   /usr/lib/xorg/Xorg                166MiB
|    0   N/A   N/A       1349     G   /usr/bin/sddm-greeter             102MiB
|=====+-----+=====+-----+

```

3. 啟動 tensorflow with cuda

`docker run --gpus all -it --rm tensorflow/tensorflow: 2.6.0-gpu`

4. 確認是否有運行到 gpu

`python -c "import tensorflow as tf; print(tf.reduce_sum(tf.random.normal([1000, 1000])))"`

或是

`python -c "import tensorflow as tf; print(tf.config.list_physical_devices('GPU'))"`

5. 啟動並掛載當前工作資料夾到 Docker 中

`docker run --gpus all --rm -v /home/norris/Tensorflow2:/home -it tensorflow:2.6.0-gpu /bin/bash`