Miniconda or Anaconda Installation

請參考官方網站。

https://www.anaconda.com/

Download the latest version of Miniconda or Anaconda

可以安裝最新版，最新版搭配的是最新版的 Python 3.9

Anaconda 版本資訊

https://repo.anaconda.com/archive/

Download the latest version of Miniconda

Miniconda 版本資訊

https://repo.anaconda.com/miniconda/

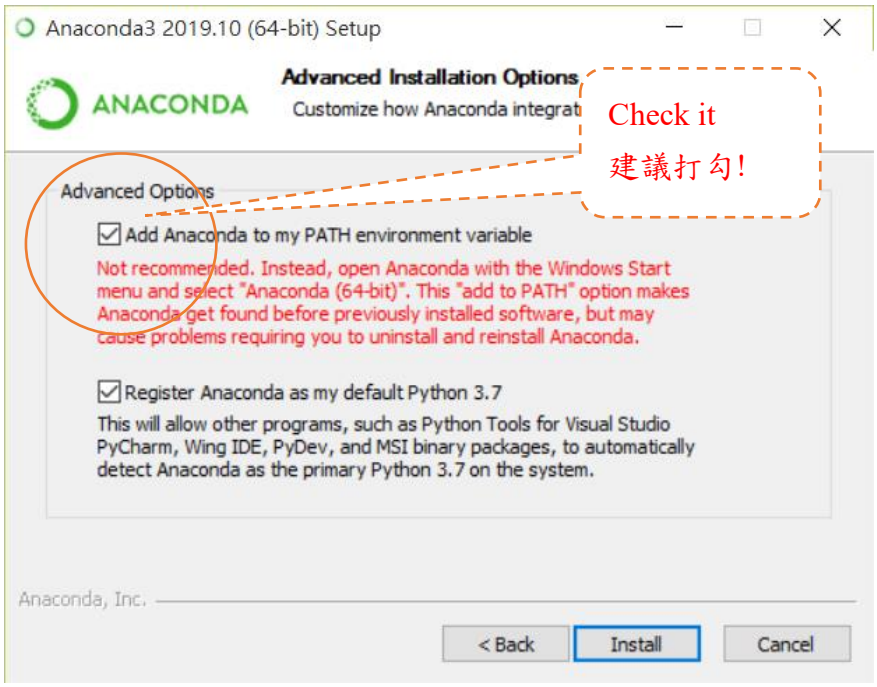
下載最新版本即可!

Windows 10 環境下安裝安裝 Anaconda 或 Miniconda

安裝 Anaconda 或 Miniconda

請安裝在內定目錄。

其餘步驟都用 yes 即可。



重新進入終端機就可以了!

Mac

安裝方式(與 Linux 安裝方式類似)

https://docs.conda.io/projects/conda/en/latest/user-guide/install/macos.html

到 Terminal 使用 wget 命令下載

wget https://repo.anaconda.com/miniconda/Miniconda3-latest-MacOSX-x86_64.sh -O ~/miniconda.sh

安裝，全部 yes 就可!

bash ~/miniconda.sh

重新進入終端機就可以了!

Apple Mac M1 users may follow the following installation steps.

https://www.youtube.com/watch?v=2kNj5oBpfyY

Linux

To install Miniconda on Ubuntu 20.04 from command line, it only takes 3 steps excluding creating and activating a conda environment.

1. **Download the latest shell script**

   wget https://repo.anaconda.com/miniconda/Miniconda3-latest-Linux-x86_64.sh

2. **Make the miniconda installation script executable**

   chmod +x Miniconda3-latest-Linux-x86_64.sh

3. **Run miniconda installation script**

   ./Miniconda3-latest-Linux-x86_64.sh

4. **Create and activate an conda environment**

   To create a conda environment, run `conda create -n newenv`

   You can also create the environment from a file like `environment.yml`, you can use use the `conda env create -f` command: `conda env create -f environment.yml`. The environment name will be the directory name.

重新進入終端機就可以了!

Updating Anaconda or Miniconda

1. Open a terminal window.
2. Run `conda update conda`.

Uninstalling Anaconda or Miniconda

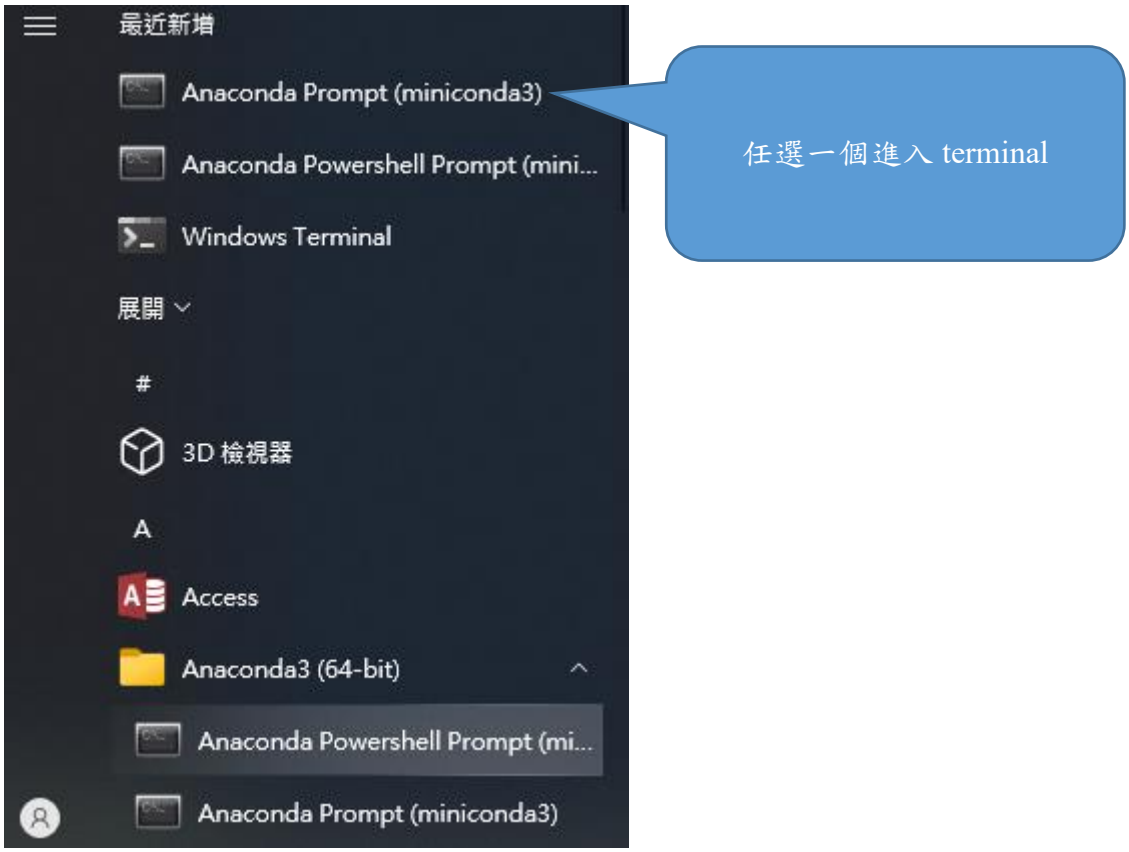
1. Open a terminal window.
2. Remove the entire Miniconda install directory with:

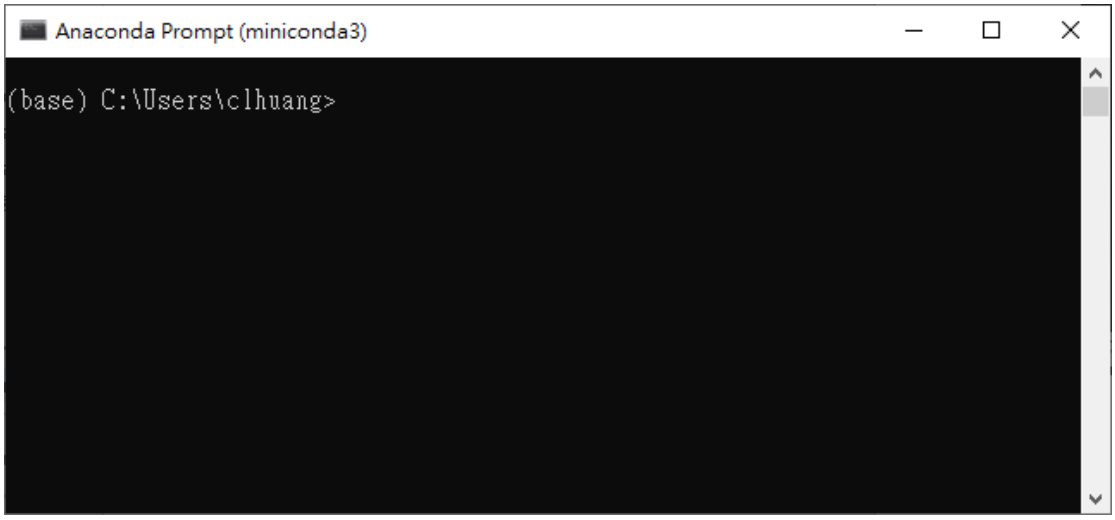
```
rm -rf ~/miniconda
```

Create a virtual environment

寫 Python 程式的人都要會用虛擬環境。

不會使用虛擬環境的人，Python 功力一定是不怎麼樣!





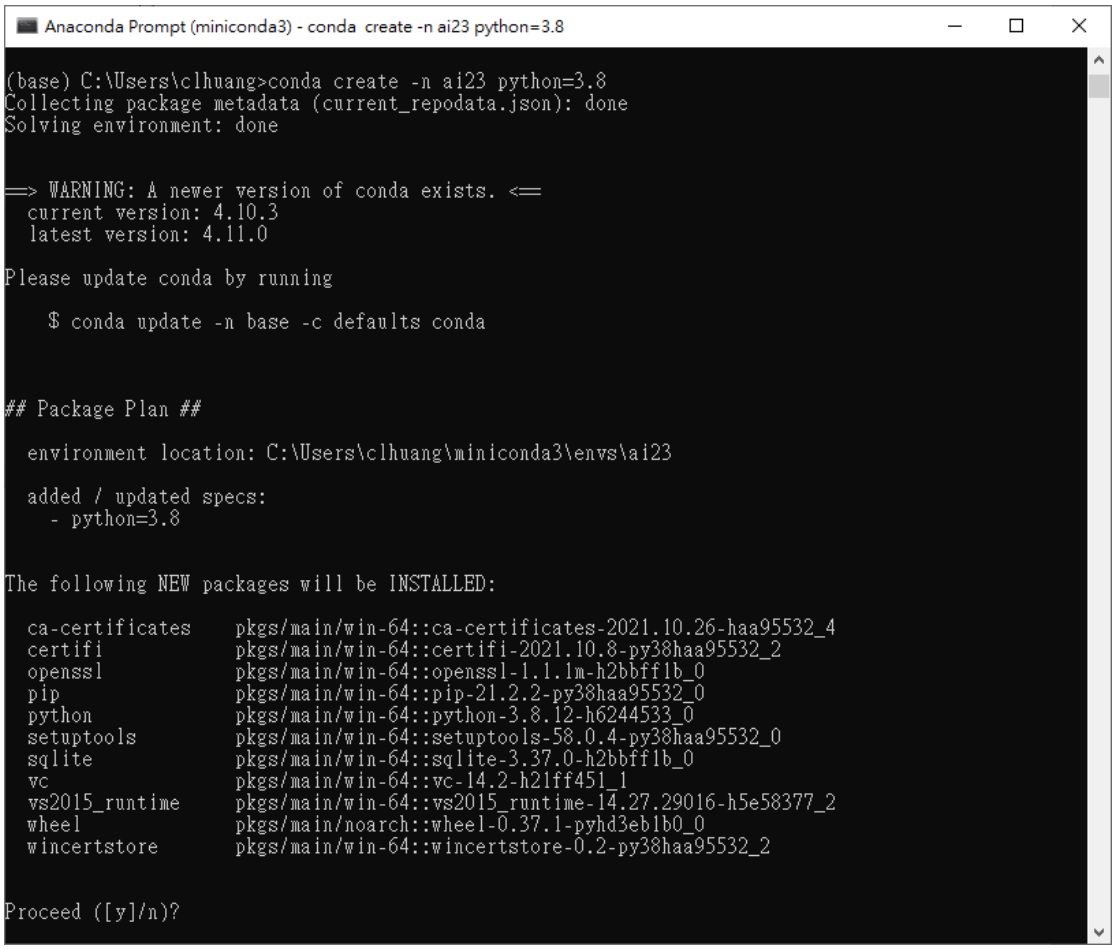
- 看看有那些虛擬環境

conda env list

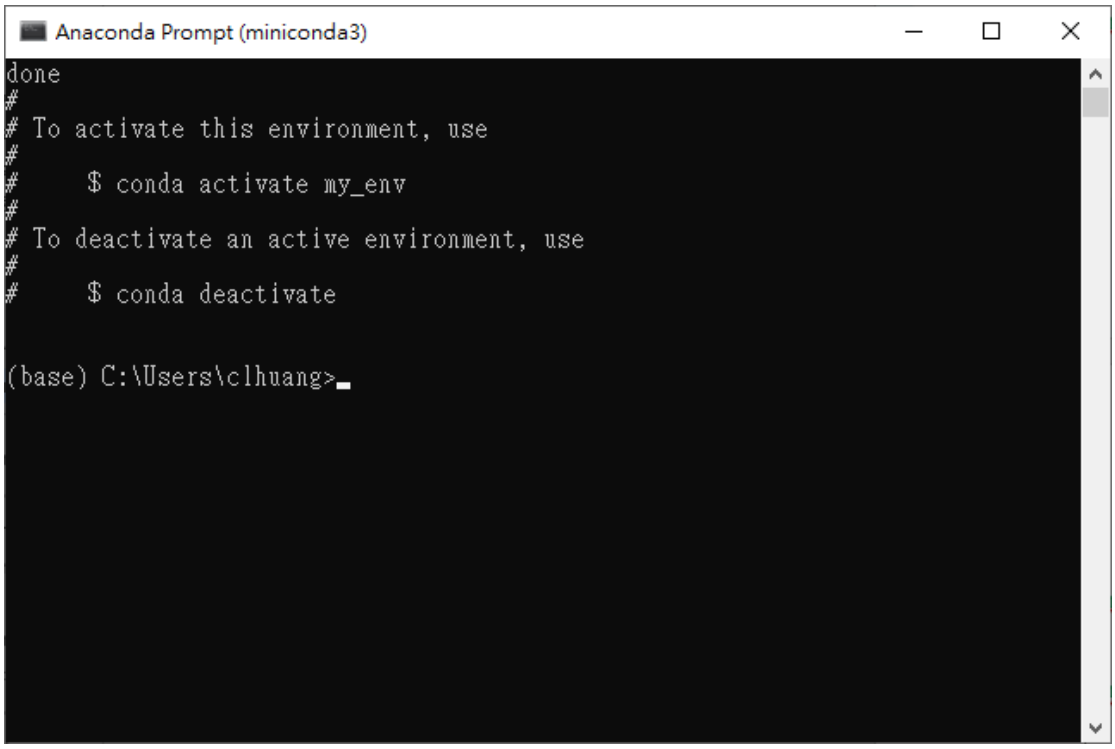
- Create a virtual environment:

conda create -n ai23 python=3.8

因為我們會用 Python 3.8，因此，我們必須建立自己的 Python 3.8 虛擬環境。
…因為 Python 版本太新，Tensorflow 還不能支援，許多套件尚未更新。



~~conda create -n my_env~~ (python 不指定版本則為 default)



Activate and deactivate an environment

- To activate this environment and to deactivate this environment, use:

Linux:

source activate my_env

source deactivate

Windows:

activate my_env

or

conda activate my_env

deactivate

- List all existing virtual environments:

conda env list

or

conda info --envs

Remove an environment

To remove an environment, in your Terminal window or an Anaconda Prompt, run:

刪除虛擬環境

$ conda env remove -n <environment>

How to run Jupyter notebook(執行)?

Run it from the Start Menu

Run it from the terminal

(1) Get into the terminal

(2)Activate your virtual environment

conda activate ai23

(3) Execute jupyter notebook with your working directory c:/users

jupyter lab c:/users

jupyter notebook c:/users

(指定你的工作目錄為 c:/users，若沒有指定則為預設目錄，或是當前目錄)

or enter your working directory first, then run jupyter notebook

cd c:/users

jupyter notebook

Uninstall anaconda

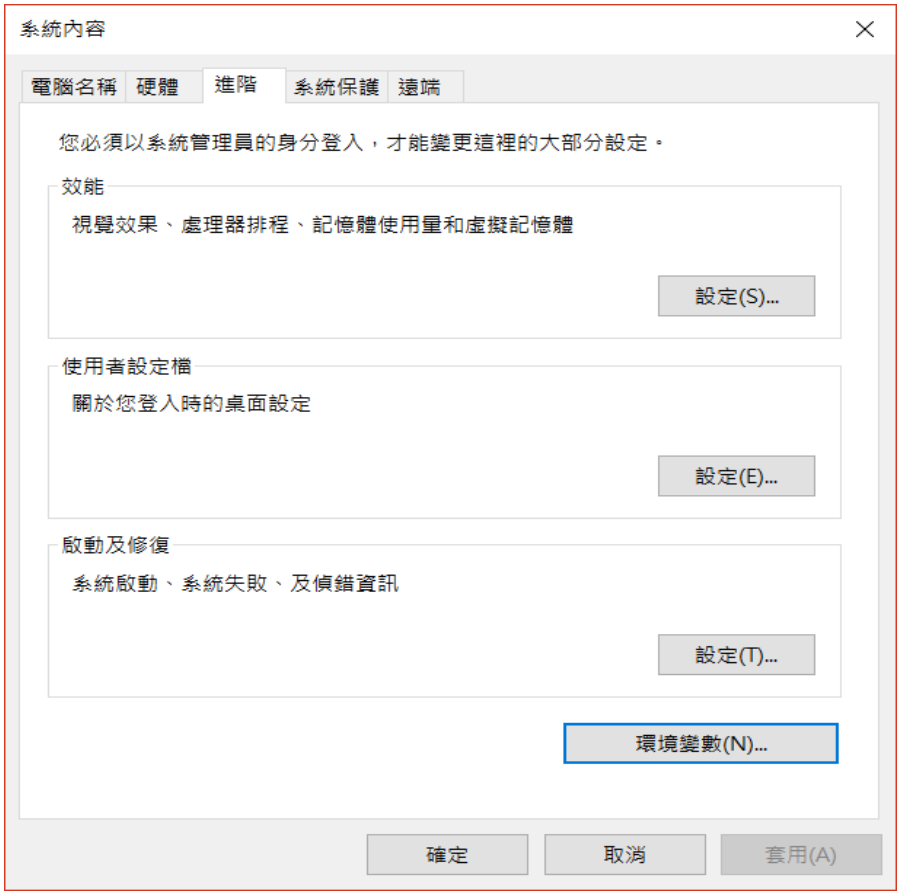
解除安裝

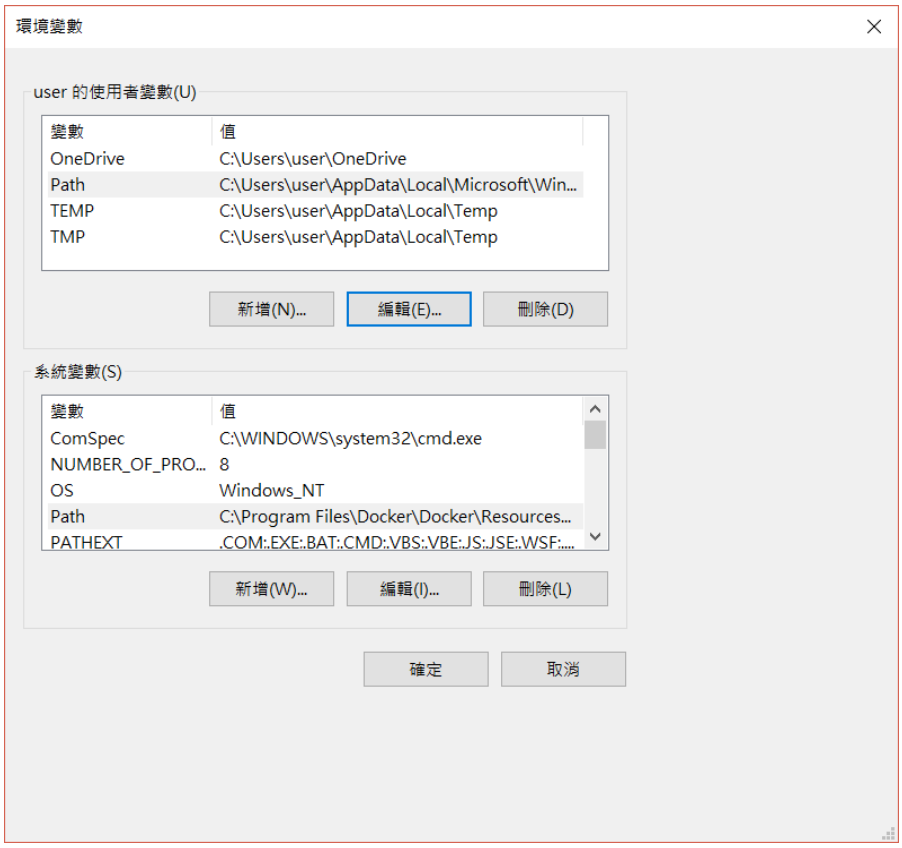
```
conda install anaconda-clean

anaconda-clean -yes


Linux

rm -rf ~/anaconda3 (for Linux)
```

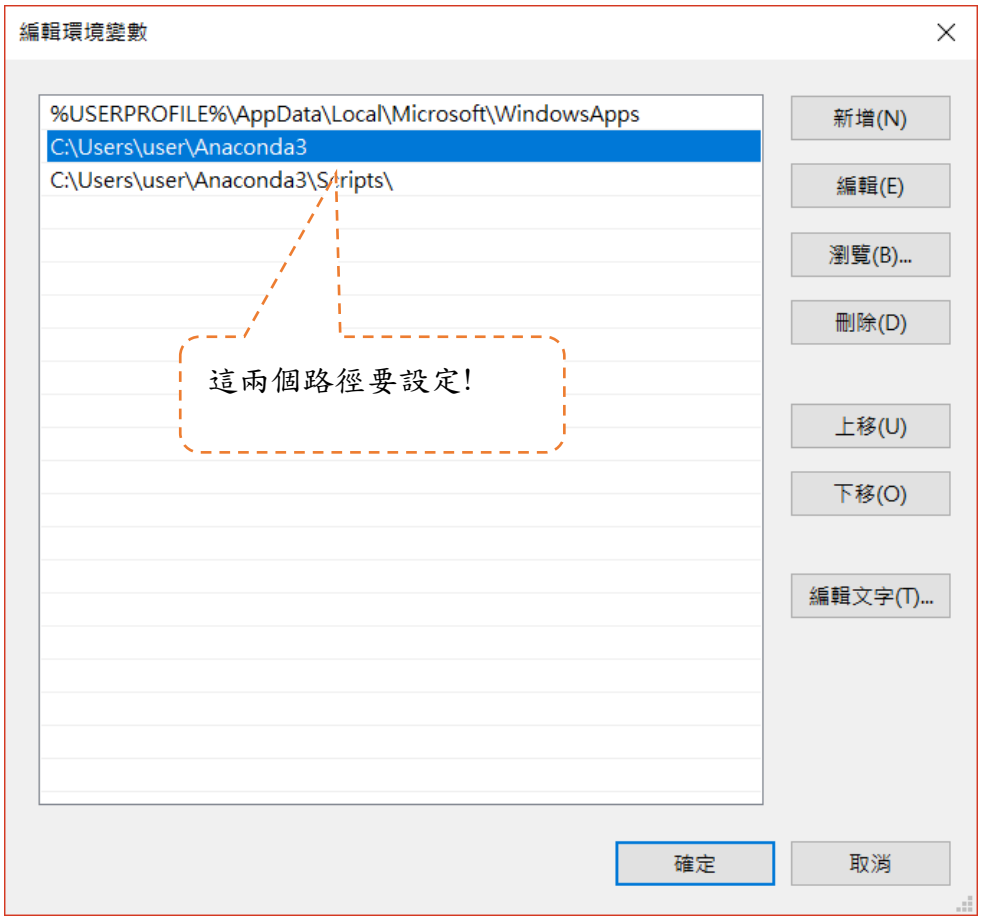
Add Anaconda to Windows 10 Path (路徑設定)

Add anaconda to your PATH environment variable

你若在安裝時未勾選加入 PATH 路徑，則你必須設定永久路徑。
方式是在環境變數中，設定系統變數或是使用者變數：


系統內容
電腦名稱
硬體
進階
系統保護
遠端
您必須以系統管理員的身分登入，才能變更這裡的大部分設定。
效能
視覺效果、處理器排程、記憶體使用量和虛擬記憶體
設定(S)...
使用者設定檔
關於您登入時的桌面設定
設定(E)...
啟動及修復
系統啟動、系統失敗、及偵錯資訊
設定(T)...
環境變數(N)...
確定
取消
套用(A)


環境變數
user 的使用者變數(U)
變數
值
OneDrive
C:\Users\user\OneDrive
Path
C:\Users\user\AppData\Local\Microsoft\Win...
TEMP
C:\Users\user\AppData\Local\Temp
TMP
C:\Users\user\AppData\Local\Temp
新增(N)...
編輯(E)...
刪除(D)
系統變數(S)
變數
值
ComSpec
C:\WINDOWS\system32\cmd.exe
NUMBER_OF_PRO...
8
OS
Windows_NT
Path
C:\Program Files\Docker\Docker\Resources...
PATHEXT
.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;...
新增(W)...
編輯(I)...
刪除(L)
確定
取消



Miniconda for advanced users (進階使用者)

只有 conda 管理工具，完全沒有安裝其他套件，進階使用者可以使用

Miniconda is a free minimal installer for conda. It is a small, bootstrap version of Anaconda that includes only conda, Python, the packages they depend on, and a small number of other useful packages, including pip, zlib and a few others. Use the conda install command to install 720+ additional conda packages from the Anaconda repository.

Anaconda or Miniconda?

Choose Anaconda if you:

- Are new to conda or Python.

- Like the convenience of having Python and over 1,500 scientific packages automatically installed at once.
- Have the time and disk space---a few minutes and 3 GB.
- Do not want to individually install each of the packages you want to use.

Choose Miniconda if you:

- Do not mind installing each of the packages you want to use individually.
- Do not have time or disk space to install over 1,500 packages at once.
- Want fast access to Python and the conda commands and you wish to sort out the other programs later.

Download the most recent version of Miniconda

https://repo.anaconda.com/miniconda/

Windows 10: 直接下載安裝即可。

Linux 環境下:
$wget https://repo.anaconda.com/miniconda/Miniconda3-latest-Linux-x86_64.sh
$bash Miniconda3-latest-Linux-x86_64.sh

安裝 miniconda 完畢占用: 383MB
安裝所有的 AI 套件完畢: 2.37 GB

Miniconda installer archive

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Miniconda2-latest-Linux-x86_64.sh	48.7M	2020-06-16 14:57:45	19ce7d0039ab349914d928e7f32b1c1b
Miniconda2-latest-MacOSX-x86_64.pkg	48.4M	2020-06-16 14:56:46	b6a7cbcc444094d8c533cc0e579c81b9
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Miniconda3-py37_4.8.3-MacOSX-x86_64.pkg	60.4M	2020-06-16 14:56:44	99fdf12ca2a6ab6653cee27792e30e69
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Miniconda3-py38_4.8.3-MacOSX-x86_64.pkg	61.3M	2020-06-16 14:56:45	8742e44539dcf8002494c7728edff2c5
Miniconda3-py38_4.8.3-MacOSX-x86_64.sh	53.2M	2020-06-16 14:57:53	3fe6d972d40ee60f2e8496cf943ad852
Miniconda3-py38_4.8.3-Windows-x86.exe	49.6M	2020-06-16 14:57:54	99e867dc54d5b3234ab37f29b6344311
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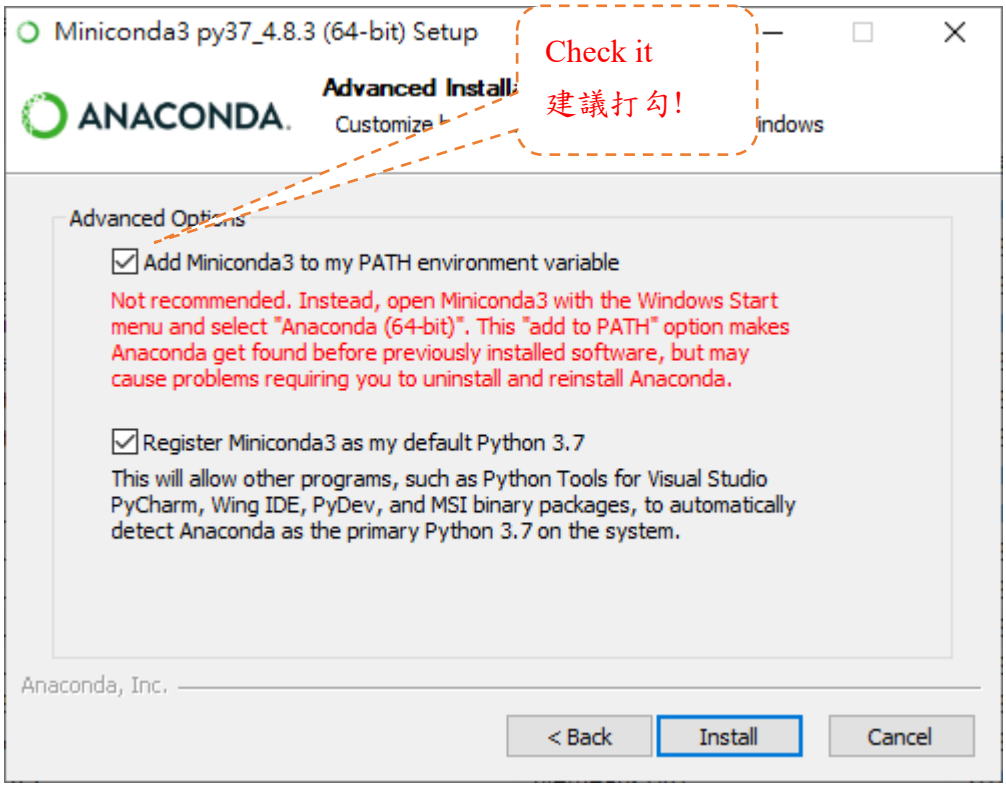

在 Docker 平台執行 Anaconda Jupyter!!

有興趣的同學，請參看另一份講義。