

人工智慧

開發環境工具介紹

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安裝Anaconda (Python 3的版本)

<https://www.anaconda.com/products/individual>

Anaconda Installers

Windows 

Python 3.8

64-Bit Graphical Installer (477 MB)

32-Bit Graphical Installer (409 MB)

MacOS 

Python 3.8

64-Bit Graphical Installer (440 MB)

64-Bit Command Line Installer (433 MB)

Linux 

Python 3.8

64-Bit (x86) Installer (544 MB)

64-Bit (Power8 and Power9) Installer (285 MB)

64-Bit (AWS Graviton2 / ARM64) Installer (413 M)

64-bit (Linux on IBM Z & LinuxONE) Installer (292 M)

Anaconda的machine learning models



Build machine learning models

Build and train machine learning models using the best Python packages built by the open-source community, including scikit-learn, TensorFlow, and PyTorch.

[Get Started](#)

建立開發環境 (Anaconda)

同時安裝
必要套件

Step #1 建立虛擬環境 & 指定python版本

```
conda create -n py37 python=3.7 jupyter numpy matplotlib
```

```
conda create -n 虛擬環境名稱 python=版本
```

Step #2 啟動虛擬環境

```
conda activate py37
```

Step #3 退出虛擬環境

```
conda deactivate
```

虛擬環境操作指令介紹 (Anaconda)

Step #1 建立虛擬環境 & 指定python版本

```
conda create -n py37 python=3.7 jupyter
```

```
conda create -n 虛擬環境名稱 python=版本
```

Step #2 啟動虛擬環境

```
activate py37
```

Step #3 退出虛擬環境

```
deactivate py37
```

Step #4 刪除虛擬環境 (避免佔用硬碟空間)

```
conda env remove --n py37
```

查看python版本

啟用虛擬環境並查看Python版本是否為3.5

```
(base) C:\Users\eric-i7>conda activate pytest
```

```
(pytest) C:\Users\eric-i7>python -V  
Python 3.5.0 :: Continuum Analytics, Inc.
```

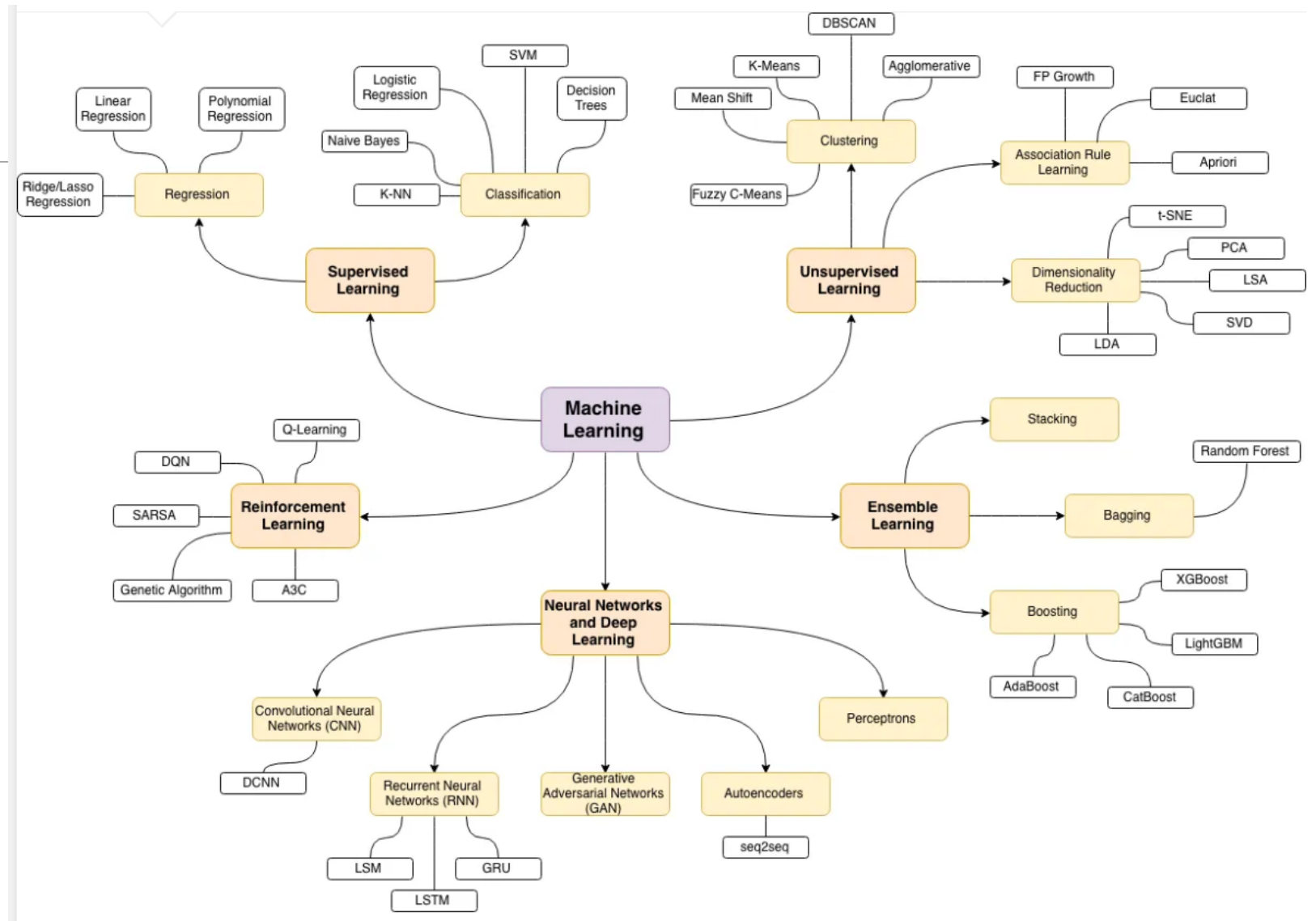
```
(pytest) C:\Users\eric-i7>
```

虛擬環境操作指令介紹

顯示所有的虛擬環境

`conda info --env`

```
(base) C:\Users\eric>conda info --env
# conda environments:
#
base          * C:\Users\eric\anaconda3
py36         C:\Users\eric\anaconda3\envs\py36
```



ANCONDA NAVIGATOR

可檢視目前已經安裝環境&模組

The screenshot displays the Anaconda Navigator desktop application. The interface includes a top menu bar with 'File' and 'Help', and a 'Connect' button. A left sidebar contains navigation options: 'Home', 'Environments', 'Learning', and 'Community'. The main workspace is titled 'Applications on base (root) Channels' and features a grid of application cards. Each card includes an icon, the application name, version number, a brief description, and a 'Launch' or 'Install' button. The applications shown are:

- CMD.exe Prompt** (0.1.1): Run a cmd.exe terminal with your current environment from Navigator activated. [Launch]
- Datalore**: Online Data Analysis Tool with smart coding assistance by JetBrains. Edit and run your Python notebooks in the cloud and share them with your team. [Launch]
- IBM Watson Studio Cloud**: IBM Watson Studio Cloud provides you the tools to analyze and visualize data, to cleanse and shape data, to create and train machine learning models. Prepare data and build models, using open source data science tools or visual modeling. [Launch]
- JupyterLab** (3.0.14): An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture. [Launch]
- Jupyter Notebook** (6.3.0): Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis. [Launch]
- Powershell Prompt** (0.0.1): Run a Powershell terminal with your current environment from Navigator activated. [Launch]
- Qt Console** (5.0.3): PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more. [Launch]
- Spyder** (4.2.5): Scientific Python Development Environment. Powerful Python IDE with advanced editing, interactive testing, debugging and introspection features. [Launch]
- Glueviz** (1.0.0): Multidimensional data visualization across files. Explore relationships within and among related datasets. [Install]
- Orange 3** (3.26.0): Component based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox. [Install]
- PyCharm Professional**: A Full-Redged IDE by JetBrains for both Scientific and Web Python development. Supports HTML, JS, and SQL. [Install]
- RStudio** (1.1.456): A set of integrated tools designed to help you be more productive with R. Includes R essentials and notebooks. [Install]

安桌模組指令

安裝模組的指令可使用 pip 或是 conda，多數的模組可使用上述兩種命令的任何一種進行安裝。

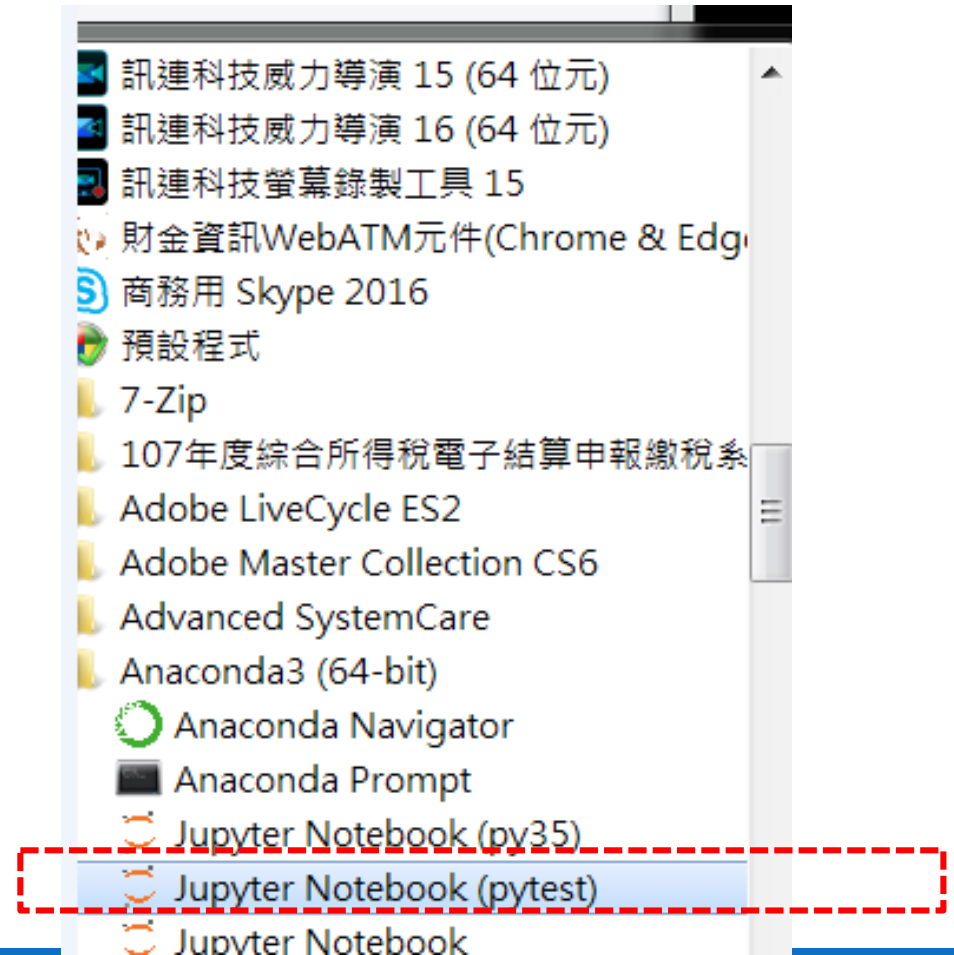
但某些模組會指定 pip 或 conda 才能安裝，建議安裝時可以多多嘗試。

功能	pip 指令	conda 指令
查詢模組列表	<code>pip list</code>	<code>conda list</code>
更新模組	<code>pip install -U 模組名稱</code>	<code>conda update 模組名稱</code>
安裝模組	<code>pip install 模組名稱</code>	<code>conda install 模組名稱</code>
移除模組	<code>pip uninstall 模組名稱</code>	<code>conda remove 模組名稱</code>

檢查是否已經安裝好Jupyter Notebook

在Windows

開始->程式集->Anaconda3 (64-bit)

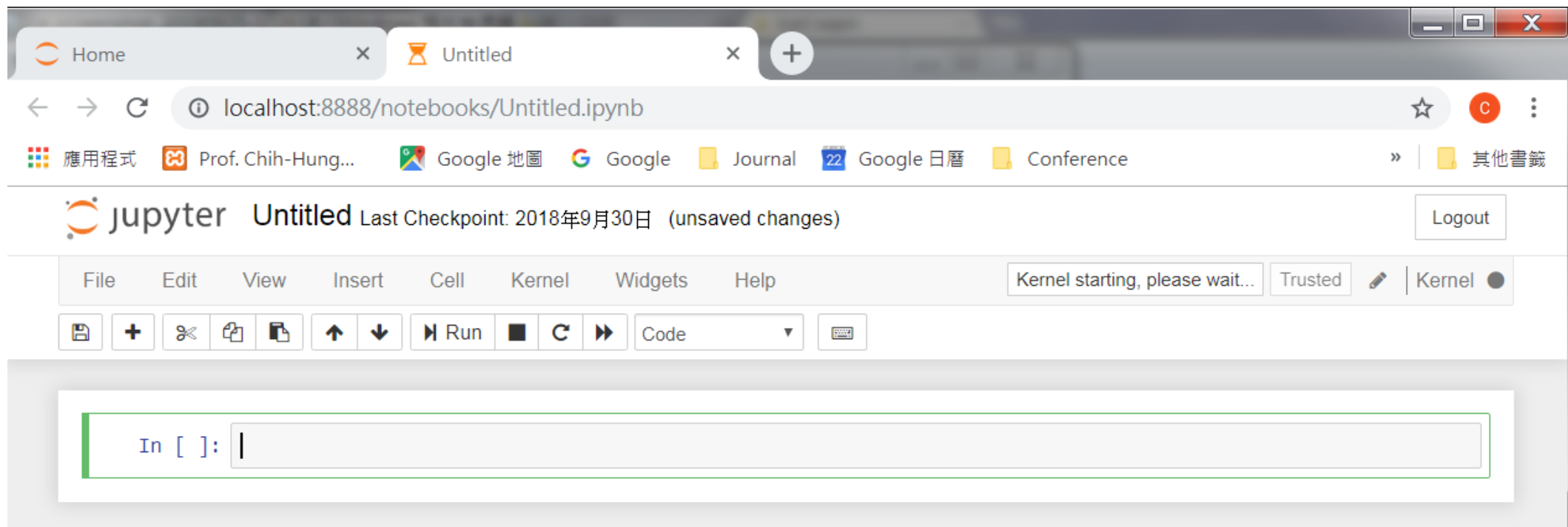


進入Jupyter

The screenshot shows a web browser window displaying the JupyterLab interface. The address bar shows the URL `localhost:8888/tree`. The page title is "jupyter". There are "Quit" and "Logout" buttons in the top right. Below the navigation tabs, there are "Files", "Running", and "Clusters" tabs, with "Files" selected. A message says "Select items to perform actions on them." with "Upload" and "New" buttons. The main area shows a file tree with columns for "Name", "Last Modified", and "File size".

	Name	Last Modified	File size
<input type="checkbox"/>	/		
<input type="checkbox"/>	Adobe Flash Builder 4.6	1 年前	
<input type="checkbox"/>	Contacts	1 年前	
<input type="checkbox"/>	Creative Cloud Files (archived) (1)	7 個月前	
<input type="checkbox"/>	Desktop	14 天前	
<input type="checkbox"/>	Documents	21 天前	
<input type="checkbox"/>	Downloads	1 小時前	
<input type="checkbox"/>	FastCopy	1 個月前	
<input type="checkbox"/>	Favorites	1 年前	
<input type="checkbox"/>	HL	6 個月前	
<input type="checkbox"/>	Links	6 個月前	
<input type="checkbox"/>	Music	1 年前	
<input type="checkbox"/>	Pictures	17 天前	
<input type="checkbox"/>	pythonwork	6 個月前	
<input type="checkbox"/>	Saved Games	1 年前	
<input type="checkbox"/>	Searches	1 年前	
<input type="checkbox"/>	source	7 個月前	
<input type="checkbox"/>	Videos	4 個月前	
<input type="checkbox"/>	VirtualBox VMs	1 年前	
<input type="checkbox"/>	wekafiles	6 個月前	
<input type="checkbox"/>	Untitled.ipynb	1 年前	72 B
<input type="checkbox"/>	book20001.PDF	7 個月前	662 kB
<input type="checkbox"/>	bookch40001.PDF	7 個月前	662 kB
<input type="checkbox"/>	pythonwork.zip	1 年前	881 kB

開發環境 Jupyter Notebook



The image shows a screenshot of a web browser displaying the Jupyter Notebook interface. The browser's address bar shows the URL `localhost:8888/notebooks/Untitled.ipynb`. The page title is "jupyter Untitled Last Checkpoint: 2018年9月30日 (unsaved changes)". The interface includes a menu bar with options: File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. Below the menu bar is a toolbar with icons for saving, adding, deleting, and running code. The main area contains a code cell with the prompt `In []: |`. The status bar at the bottom indicates "Kernel starting, please wait..." and "Trusted".

恭喜已經完成基礎開發環境。
可以開始寫程式了。
