

Introduction to TensorFlow

Setup

郭耀仁

大綱

- 開發環境
- 隨堂練習

兩種開發環境

- 瀏覽器
- 本機端

建立瀏覽器開發環境

[illegible]

建立本機端開發環境

- [下載 Anaconda \(https://www.anaconda.com/download/\)](https://www.anaconda.com/download/).
- [安裝步驟 \(https://www.datainpoint.com/python-essentials/01-quick-start.html#%E5%BB%BA%E7%AB%8B%E6%9C%AC%E6%A9%9F%E7%AB%AF%E7\)](https://www.datainpoint.com/python-essentials/01-quick-start.html#%E5%BB%BA%E7%AB%8B%E6%9C%AC%E6%A9%9F%E7%AB%AF%E7)

檢視可用虛擬環境

```
conda env list
```

建立虛擬環境

```
conda create -n tensorflow python=3.6
```

啟動虛擬環境

```
conda activate tensorflow
```


填寫需要的模組

- 在專案資料夾中新增一個 requirements.txt 文字檔作為安裝模組清單

```
tensorflow  
scipy  
scikit-learn  
matplotlib  
xlrd  
ipdb  
Pillow  
lxml  
ipykernel  
pandas
```

安裝

```
pip install -r requirements.txt
```

建立新的 Jupyter Notebook Kernel

```
python -m ipykernel install --user --name tensorflow --display-name "TensorFlow"
```

檢視可用的 Jupyter Notebook Kernel

```
jupyter kernelspec list
```

開啟以 TensorFlow 為 Kernel 的 Notebook

Files Running Clusters

Select items to perform actions on them.

Upload New ▾ ↺

<input type="checkbox"/>	▼	📁
<input type="checkbox"/>	📄	setup.ipynb
<input type="checkbox"/>	📄	_config.yml
<input type="checkbox"/>	📄	README.md
<input type="checkbox"/>	📄	requirements.txt

Notebook:

- Julia 1.0.0
- Python 3
- R
- TensorFlow**
- Create a new notebook with TensorFlow
- Text File
- Folder
- Terminal

Hello TensorFlow

```
In [1]: import tensorflow as tf

hello = tf.constant('Hello, TensorFlow!')
with tf.Session() as sess:
    print(sess.run(hello))
```

Hello, TensorFlow!

隨堂練習

建立瀏覽器的開發環境

連結 Google Drive 與 Google Colaboratory。

建立本機端的開發環境