

### 3. 安装Tensorflow 与 Keras

```
> conda create -n wannen35 python=3.5  
> activate wannen35  
> pip install tensorflow
```

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

```
1]:
```

理论上有很多种安装方式，这里我们用与anaconda相关的方式来安装，以方便以后的使用和管理。

```
conda create -n tensorflow python=3.5  
activate tensorflow  
pip install --ignore_installed --upgrade tensorflow
```



更多好课 —

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## 安装 TendsFlow 与 Keras

```
(base) C:\Users\Administrator>conda create -n wanmen35 python=3.6.4
Solving environment: done
```

```
==> WARNING: A newer version of conda exists. <==
  current version: 4.4.10
  latest version: 4.5.4
```

Please update conda by running

```
$ conda update -n base conda
```

## Package Plan ##

environment location: C:\ProgramData\Anaconda3\envs\wanmen35

added / updated specs:

- python=3.6.4

The following packages will be downloaded:

package	build	
python-3.6.4	h0c2934d_3	21.4 MB
wheel-0.31.1	py36_0	81 KB
pip-10.0.1	py36_0	1.8 MB
setuptools-39.2.0	py36_0	571 KB
certifi-2018.4.16	py36_0	143 KB
Total:		24.0 MB

The following NEW packages will be INSTALLED:

certifi: 2018.4.16-py36\_0  
pip: 10.0.1-py36\_0  
python: 3.6.4-h0c2934d\_3  
setuptools: 39.2.0-py36\_0  
vc: 14-h0510ff6\_3  
vs2015\_runtime: 14.0.25123-3  
wheel: 0.31.1-py36\_0

```

-----
Total: 24.0 MB

The following NEW packages will be INSTALLED:

certifi: 2018.4.16-py36_0
pip: 10.0.1-py36_0
python: 3.6.4-h0c2934d_3
setuptools: 39.2.0-py36_0
vc: 14-h0510ff6_3
vs2015_runtime: 14.0.25123-3
wheel: 0.31.1-py36_0
wincertstore: 0.2-py36h7fe50ca_0

Proceed ([y]/n)? y

Downloading and Extracting Packages
python 3.6.4: ##### : 100%
wheel 0.31.1: ##### : 100%
pip 10.0.1: ##### : 100%
setuptools 39.2.0: ##### : 100%
certifi 2018.4.16: ##### : 100%
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
#
# To activate this environment, use
#
#     $ conda activate wanmen35
#
# To deactivate an active environment, use
#
#     $ conda deactivate

(base) C:\Users\Administrator>_

```

```

(base) C:\Users\Administrator>activate wanmen35

(wanmen35) C:\Users\Administrator>_

```

Pip install tensorflow

```
管理员: Anaconda Prompt
47% | 153kB 1.3MB/s eta 0:0
50% | 163kB 1.1MB/s eta 0:
53% | 174kB 1.3MB/s eta 0
57% | 184kB 1.3MB/s eta
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69% | 225kB 1.6MB/s
72% | 235kB 1.3MB/s
76% | 245kB 1.1MB/
79% | 256kB 1.3MB
82% | 266kB 1.3M
85% | 276kB 1.3
88% | 286kB 1.
91% | 296kB 1
95% | 307kB
98% | 317kB
100% | 327kB
B 1.3MB/s
Collecting bleach==1.5.0 (from tensorboard<1.9.0,>=1.8.0->tensorflow)
  Downloading https://files.pythonhosted.org/packages/33/70/86c5fec937ea4964184d
4d6c4f0b9551564f821e1c3575907639036d9b90/bleach-1.5.0-py2.py3-none-any.whl
Building wheels for collected packages: termcolor, absl-py, gast, html5lib
  Running setup.py bdist_wheel for termcolor ... done
  Stored in directory: C:\Users\Administrator\AppData\Local\pip\Cache\wheels\7c\
06\54\bc84598baldaf8f970247f550b175aaee85f68b4b0c5ab2c6
  Running setup.py bdist_wheel for absl-py ... done
  Stored in directory: C:\Users\Administrator\AppData\Local\pip\Cache\wheels\af\
f8\59\1933dbb3447ea6ef57062fd5461cb118deb8c2ed074e8344bf
  Running setup.py bdist_wheel for gast ... done
  Stored in directory: C:\Users\Administrator\AppData\Local\pip\Cache\wheels\9a\
1f\0e\3cde98113222b853e98fc0a8e9924480a3e25f1b4008cedb4f
  Running setup.py bdist_wheel for html5lib ... done
  Stored in directory: C:\Users\Administrator\AppData\Local\pip\Cache\wheels\50\
ae\f9\d2b189788efcf61dee0e36045476735c838898eef1cad6e29
Successfully built termcolor absl-py gast html5lib
Installing collected packages: six, grpcio, protobuf, termcolor, absl-py, markdo
wn, html5lib, werkzeug, bleach, numpy, tensorboard, gast, astor, tensorflow
Successfully installed absl-py-0.2.2 astor-0.6.2 bleach-1.5.0 gast-0.2.0 grpcio-
1.12.1 html5lib-0.9999999 markdown-2.6.11 numpy-1.14.4 protobuf-3.5.2.post1 six-
1.11.0 tensorboard-1.8.0 tensorflow-1.8.0 termcolor-1.1.0 werkzeug-0.14.1

(wanmen35) C:\Users\Administrator>
```

进入 tensorflow

```
管理员: Anaconda Prompt - python

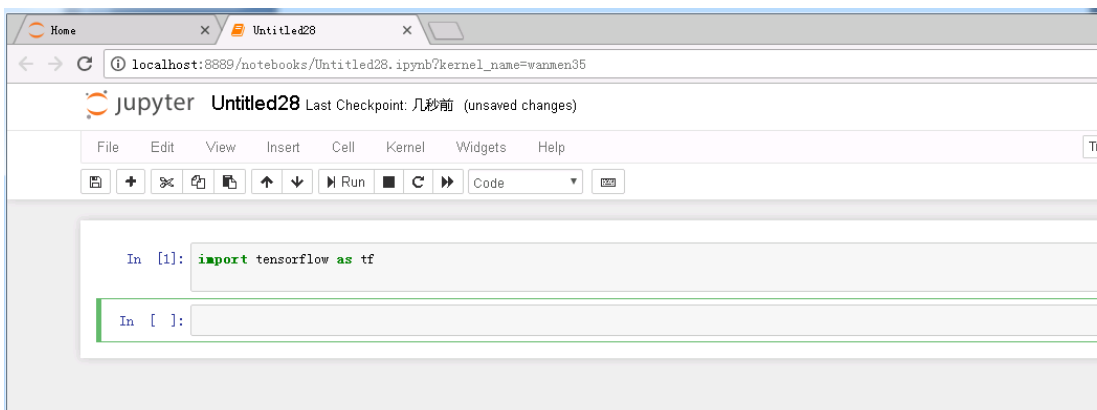
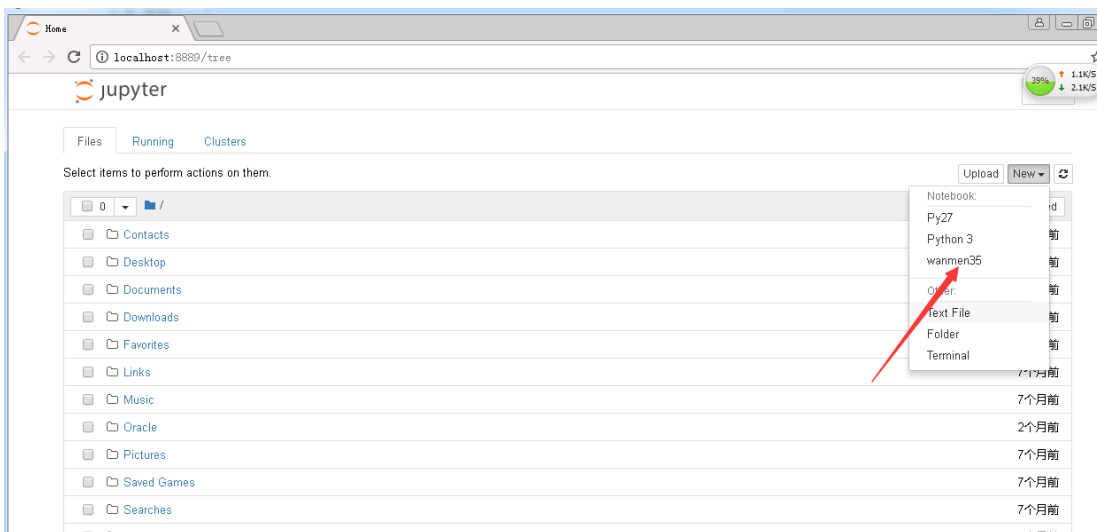
(base) C:\Users\Administrator>activate wanmen35

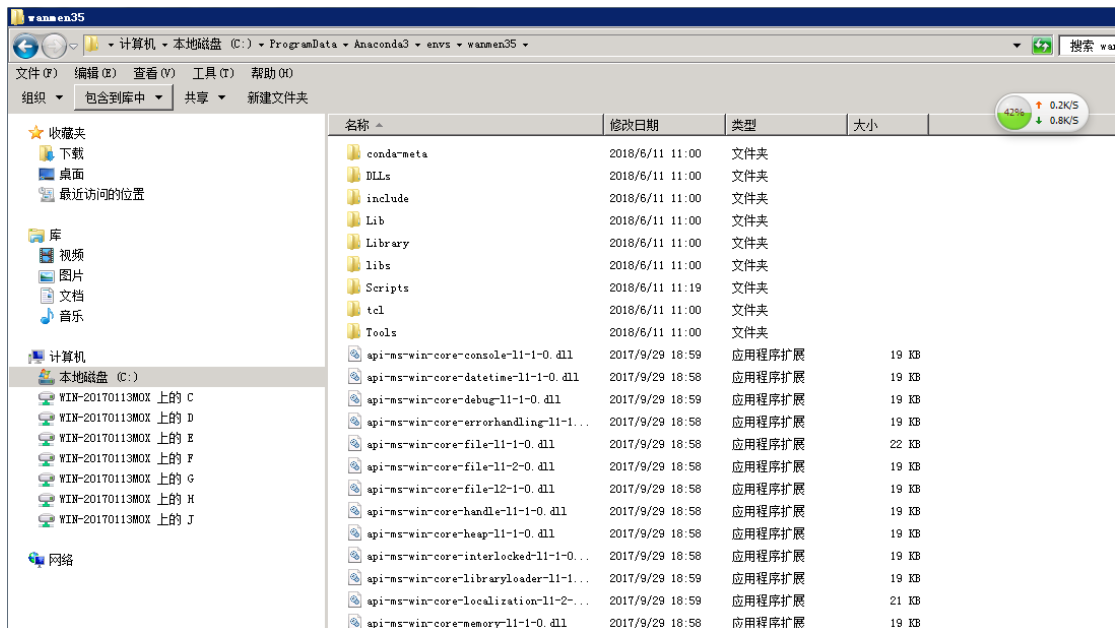
(wanmen35) C:\Users\Administrator>python
Python 3.6.4 |Anaconda, Inc.| (default, Mar 12 2018, 20:20:50) [MSC v.1900 64 bi
t (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import tensorflow as tf
>>>
```

```
C:\ProgramData\Anaconda3\envs\wanmen35\python.exe: No module named ipykernel

(wanmen35) C:\Users\Administrator>pip install ipykernel
Collecting ipykernel
  Downloading https://files.pythonhosted.org/packages/ab/3f/cd624c835aa3336a9110d0a99e15070f343b881b7d651ab1375ef226a3ac/ipykernel-4.8.2-py3-none-any.whl (108kB)
    47% |#####| 51kB 88kB/s eta 0:00:0
    56% |#####| 61kB 106kB/s eta 0:
    65% |#####| 71kB 114kB/s eta
    75% |#####| 81kB 122kB/s
    84% |#####| 92kB 137k
    94% |#####| 102kB
   100% |#####| 112k
```

```
(wanmen35) C:\Users\Administrator>python -m ipykernel install --name wanmen35
Installed kernelspec wanmen35 in C:\ProgramData\jupyter\kernels\wanmen35
```





## Jupyter notebook 基本使用

### 4. Jupyter notebook的基本使用技巧

以下所有操作都需要在命令模式下完成（按ESC或者点击编辑框外的空白处）

- 向上增加空白cell, **A**
- 向下增加空白cell, **B**
- 运行cell, 并将光标移动到下一个cell, **shift+enter**
- 运行cell, **ctrl+enter**
- 删除本cell, **DD**
- 剪切本cell, **X**
- 粘贴本cell, **V**
- 合并两个cell, **A**
- 将cell转为代码状态, **Y**
- 将cell转为markdown状态, **M**
- 将选中的几个cells合并, **Shift+M**
- 打开 / 关闭行号, **L**
- 恢复删除的最后一个cell, **Z** 只有最后一个啊
- 选中代码整体左移 / 右移, **ctrl+[或者ctrl+]**

列出所安装的库

```
(wanmen35) C:\Users\Administrator>pip list
Package            Version
-----
absl-py            0.2.2
astor              0.6.2
backcall          0.1.0
bleach            1.5.0
certifi           2018.4.16
colorama          0.3.9
decorator         4.3.0
gast              0.2.0
graphviz          0.8.3
grpcio            1.12.1
html5lib          0.9999999
ipykernel         4.8.2
ipython           6.4.0
ipython-genutils 0.2.0
jedi              0.12.0
jupyter-client    5.2.3
jupyter-core      4.4.0
Markdown          2.6.11
numpy             1.14.4
parso             0.2.1
pickleshare       0.7.4
pip               10.0.1
prompt-toolkit    1.0.15
```

列出已过期的库

```
(wanmen35) C:\Users\Administrator>pip list --outdated
Package            Version    Latest Type
-----
bleach            1.5.0     2.1.3  wheel
html5lib          0.9999999 1.0.1   wheel
numpy             1.14.4    1.14.5 wheel
prompt-toolkit    1.0.15    2.0.3   wheel

(wanmen35) C:\Users\Administrator>
```

单个更新库


1. `pip install --upgrade 库名`
- 2.
3. #注意是upgrade, 不是update

# Makedown 使用

```
import markdown
from markdown.extensions.wikilinks import WikiLinkExtension
a = markdown.markdown("*boo!*")
b = markdown.markdown("**boom!**")
print(a)
print(b)
```

jupyter Untitled31 Last Checkpoint: 几秒前 (unsaved changes)

File Edit View Insert Cell Kernel Widgets Help



In [2]:

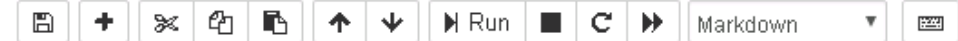
```
import markdown
from markdown.extensions.wikilinks import WikiLinkExtension
a = markdown.markdown("*boo!*")
b = markdown.markdown("**boom!**")
print(a)
print(b)
```

```
<p><em>boo!</em></p>
<p><strong>boom!</strong></p>
```

In [ ]:

jupyter Untitled31 Last Checkpoint: 16分钟前 (unsaved changes)

File Edit View Insert Cell Kernel Widgets Help



In [12]:

# 标题

引用一段话

```
** 黑体 **
* 观点1 *
* 观点2 *
* 观点3 *
```



## 黑体

- 观点1 \*
- 观点2 \*
- 观点3 \*

$$\sum_{i=1}^n I$$