

## 第三周学习笔记

### 1. 在 Git Bash 终端配置 conda init

```
Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ which conda
/c/Users/Administrator/anaconda3/Scripts/conda
Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda init bash
```


重新启动后的界面如下

```
(base)
Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
```

再在 VScode 里删除 13 行

12	PS1='\[\033]0;\$TITLEPREFIX:\$PWD\007\' # set window title
13	#PS1="\$PS1""\n' # new line
14	PS1="\$PS1""\[\033[32m\' # change to green

最后打开 base 在前面

 MINGW64:/c/Users/Administrator

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ |
```

### 2. 使用 conda info 命令查看本机 Conda 的配置信息

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda info

      active environment : base
      active env location : C:\Users\Administrator\anaconda3
      shell level        : 1
      user config file   : C:\Users\Administrator\.condarc
      populated config files : C:\Users\Administrator\anaconda3\.condarc
                           C:\Users\Administrator\.condarc
      conda version      : 24.9.2
      conda-build version: 24.9.0
```

### 3. 使用 conda env list 命令查看已有的 Conda 环境的名称和路径

```
$ conda env list
# conda environments:
#
base * C:\Users\Administrator\anaconda3
```

### 4. 使用 conda create 命令创建两个 Conda 环境，一个里面安装 python3.12 和 requests 软件包

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda create -n ptsd python=3.12 requests
Channels:
- defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\Administrator\anaconda3\envs\ptsd
```

另一个里面安装 `python3.9`、`pandas` 和 `statsmodels` 软件包

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda create -n ptsd2 python=3.9 pandas statsmodels
WARNING: A directory already exists at the target location 'C:\Users\Administrator\anaconda3\envs\ptsd2'
but it is not a conda environment.
```

切换环境

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda env list
# conda environments:
#
base                  *  C:\Users\Administrator\anaconda3
ptsd                  C:\Users\Administrator\anaconda3\envs\ptsd
ptsd2                 C:\Users\Administrator\anaconda3\envs\ptsd2
```

激活 ptsd

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda activate ptsd
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ |
```

验证 Python 版本

```
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ which python
/c/Users/Administrator/anaconda3/envs/ptsd/python
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ python --version
Python 3.12.9
```

验证软件包版本

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda activate ptsd
Python 3.12.9 | packaged by Anaconda3 | cpython
Type "help", "copyright", "credits" or "quit()" for more
>>> import requests
File "<stdin>", line 1
import requests
IndentationError: unexpected indent
>>> import requests
>>> request.__file__
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'request' is not defined
>>> requests.__file__
'C:\Users\Administrator\anaconda3\envs\ptsd\python\requests\__init__.py'
>>> request.__version__
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'request' is not defined
>>> requests.__version__
'2.32.3'
```

5. 使用 `conda list` 命令显示 Conda 环境里的软件包列表及其版本信息

```
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda list
# packages in environment at C:\Users\Administrator\anaconda3\envs\ptsd:
#
# Name                    Version            Build
brotli-python            1.0.9              py312h5da7b33_9
bzip2                    1.0.8              h2bbff1b_6
ca-certificates           2025.2.25          haa95532_0
certifi                   2025.1.31          py312haa95532_0
charset-normalizer        3.3.2              pyhd3eb1b0_0
expat                     2.6.4              h8ddb27b_0
idna                      3.7                py312haa95532_0
libffi                    3.4.4              hd77b12b_1
openssl                   3.0.16             h3f729d1_0
pip                       25.0               py312haa95532_0
pysocks                   1.7.1              py312haa95532_0
python                    3.12.9             h14ffc60_0
requests                  2.32.3             py312haa95532_0
setuptools                75.8.0             py312haa95532_0
```

6. 使用 `conda install` 命令往 Conda 环境里安装 `ipython`，并验证版本

```
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda install ipython
Channels:
- defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done
```

```
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda list
# packages in environment at C:\Users\Administrator\anaconda3\envs\ptsd:
```

7. 在终端复制 `conda config --set show_channel_urls yes`，安装 `condarc` 再在 VS code 里粘贴下面命令

`channels:`

- `defaults`

`show_channel_urls: true`

`default_channels:`

- `https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkgs/main`
- `https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkgs/r`
- `https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkgs/msys2`

`custom_channels:`

`conda-forge: https://mirrors.tuna.tsinghua.edu.cn/anaconda/cloud`

`pytorch: https://mirrors.tuna.tsinghua.edu.cn/anaconda/cloud`

清除缓存

```
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda clean -i
Will remove 1 index cache(s).
Proceed ([y]/n)? y

(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda create -n myenv numpy
Channels:
- defaults
```

将 `defaults` 改为 `conda-forge`

8. 使用 `pip install` 命令往 Conda 环境里安装 Python 软件包，并验证版本

```
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ pip install tushare
Collecting tushare
  Downloading tushare-1.4.19-py3-none-any.whl.metadata (3.1 kB)
```

9. 配置 PyPI 清华镜像, 复制代码 , 再用 `pip install` 命令安装 `tushare`, 并检查版本

```
python -m pip install --upgrade pip
```

```
pip config set global.index-url
```

<https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple>

10. 导出 `environment.yml` Conda 环境配置文件

```
(ptsd) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda env export -f environment.yml
```

删除 Conda 环境

```
(base) Administrator@MICROSO-J56DDR4 MINGW64 ~ (main)
$ conda env remove -n ptsd
```

用 `environment.yml` 配置文件重建 Conda 环境

11. 借助豆包理解 Conda 与 Python 的关系, 理解 Conda-Forge 与 Conda 的关系, 理解 Python 解释器、第三方软件包、PyPI 软件仓库、以及程序/软件包的路径问题。

12. 创建 `environment.yml` 项目

```
! environment.yml ×
! environment.yml
1  name: prj1
2  channels:
3    - conda-forge
4  dependencies:
5    - python3.12
```

创建 `main.py` 项目

```
main.py > ...
1  def main():
2    |   print("Hello, conda!")
3
4
5  if __name__ == "__main__":
6    |   main()
```