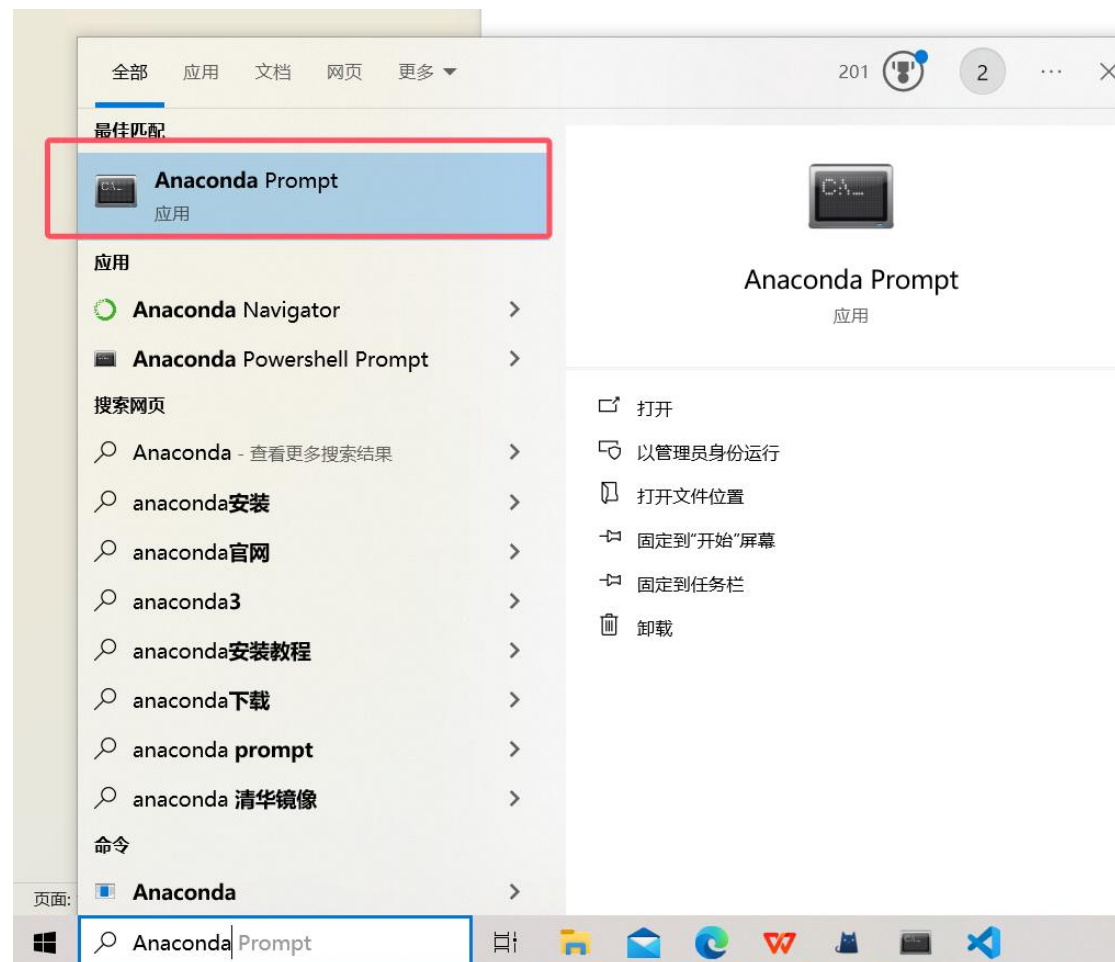


1.安装 Anaconda

参考博客：https://blog.csdn.net/qq_45281589/article/details/134597810

2.配环境（python 版本和相关的库）

打开 Anaconda prompt



依次输入以下命令：

创建一个名为 study 的虚拟环境 指定 python 版本为 3.5

```
conda create --name study python=3.5
```

启用 study 这个虚拟环境

```
conda activate study
```

因为 tensorflow 需要 1.1.0 版本

pip install tensorflow==1.1.0 -i <https://pypi.mirrors.ustc.edu.cn/simple>

```
Anaconda Prompt - pip install tensorflow-gpu==1.1.0 -i https://pypi.mirrors.ustc.edu.cn/simple

(base) C:\Users\wd>conda activate study

(study) C:\Users\wd>pip install tensorflow-gpu==1.1.0 -i https://pypi.mirrors.ustc.edu.cn/simple
Looking in indexes: https://pypi.mirrors.ustc.edu.cn/simple
Collecting tensorflow-gpu==1.1.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/ca/5d/0cc7fe8943e96626e565d3e375422c78520d7a2fa7ea51fa65beed15e219/tensorflow-gpu-1.1.0-cp35-cp35m-win_amd64.whl (48.5MB)
    30% |██████████| 14.6MB 2.4MB/s eta 0:00:15_
```

有可能会报错

```
Anaconda Prompt

(base) C:\Users\wd>conda activate study

(study) C:\Users\wd>pip install tensorflow-gpu==1.1.0 -i https://pypi.mirrors.ustc.edu.cn/simple
Looking in indexes: https://pypi.mirrors.ustc.edu.cn/simple
Collecting tensorflow-gpu==1.1.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/ca/5d/0cc7fe8943e96626e565d3e375422c78520d7a2fa7ea51fa65beed15e219/tensorflow-gpu-1.1.0-cp35-cp35m-win_amd64.whl (48.5MB)
    100% |██████████| 48.6MB 607kB/s
Collecting protobuf>=3.2.0 (from tensorflow-gpu==1.1.0)
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/6c/be/4e32d02bf08b8f76bf6e59f2a531690c1e4264530404501f3489ca975d9a/protobuf-4.21.0-py2.py3-none-any.whl (164kB)
    100% |██████████| 174kB 2.4MB/s
protobuf requires Python '>=3.7' but the running Python is 3.5.6
You are using pip version 10.0.1, however version 20.3.4 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

(study) C:\Users\wd>
```

此时需要升级 pip

python -m pip install --upgrade pip -i <https://pypi.mirrors.ustc.edu.cn/simple>

再次运行

pip install tensorflow==1.1.0 -i <https://pypi.mirrors.ustc.edu.cn/simple>

```
Anaconda Prompt

(study) C:\Users\wd>pip install tensorflow-gpu==1.1.0 -i https://pypi.mirrors.ustc.edu.cn/simple
DEPRECATION: Python 3.5 reached the end of its life on September 13th, 2020. Please upgrade your Python as Python 3.5 is
no longer maintained. pip 21.0 will drop support for Python 3.5 in January 2021. pip 21.0 will remove support for this
functionality.
Looking in indexes: https://pypi.mirrors.ustc.edu.cn/simple
Collecting tensorflow-gpu==1.1.0
  Using cached https://mirrors.ustc.edu.cn/pypi/packages/ca/5d/0cc7fe8943e96626e565d3e375422c78520d7a2fa7ea51fa65beed15e
219/tensorflow-gpu-1.1.0-cp35-cp35m-win_amd64.whl (48.5 MB)
Collecting six>=1.10.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/b7/ce/149a00dd41f10bc29e5921b496af8b574d8413afcd5e30dfa0ed46c2cc
5e/six-1.17.0-py2.py3-none-any.whl (11 kB)
Collecting werkzeug>=0.11.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/cc/94/5f7079a0e00bd6863ef8f1da638721e9da21e5bacee597595b318f71d6
2e/Werkzeug-1.0.1-py2.py3-none-any.whl (298 kB)
    [redacted] 298 kB 2.2 MB/s
Requirement already satisfied: wheel>=0.26 in d:\anaconda3\envs\study\lib\site-packages (from tensorflow-gpu==1.1.0) (0.
37.1)
Collecting numpy>=1.11.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/ed/09/ff8f529a5548ff788765f66a81ef751130f26f8c7d517e94d3dbf3bale
d5/numpy-1.18.5-cp35-cp35m-win_amd64.whl (12.7 MB)
    [redacted] 12.7 MB 3.2 MB/s
Collecting protobuf>=3.2.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/32/27/1141a8232723dcb10a595cc0ce4321dcbdd5215300bf4acfc142343205
bf/protobuf-3.19.6-py2.py3-none-any.whl (162 kB)
    [redacted] 162 kB 3.3 MB/s
Installing collected packages: werkzeug, six, protobuf, numpy, tensorflow-gpu
Successfully installed numpy-1.18.5 protobuf-3.19.6 six-1.17.0 tensorflow-gpu-1.1.0 werkzeug-1.0.1

(study) C:\Users\wd>
```

应该是安装成功啦!!

输入 pip list 看是否成功安装 tensorflow

```
Anaconda Prompt

37.1)
Collecting numpy>=1.11.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/ed/09/ff8f529a5548ff788765f66a81ef751130f26f8c7d517e94d3dbf3bale
d5/numpy-1.18.5-cp35-cp35m-win_amd64.whl (12.7 MB)
    [redacted] 12.7 MB 3.2 MB/s
Collecting protobuf>=3.2.0
  Downloading https://mirrors.ustc.edu.cn/pypi/packages/32/27/1141a8232723dcb10a595cc0ce4321dcbdd5215300bf4acfc142343205
bf/protobuf-3.19.6-py2.py3-none-any.whl (162 kB)
    [redacted] 162 kB 3.3 MB/s
Installing collected packages: werkzeug, six, protobuf, numpy, tensorflow-gpu
Successfully installed numpy-1.18.5 protobuf-3.19.6 six-1.17.0 tensorflow-gpu-1.1.0 werkzeug-1.0.1

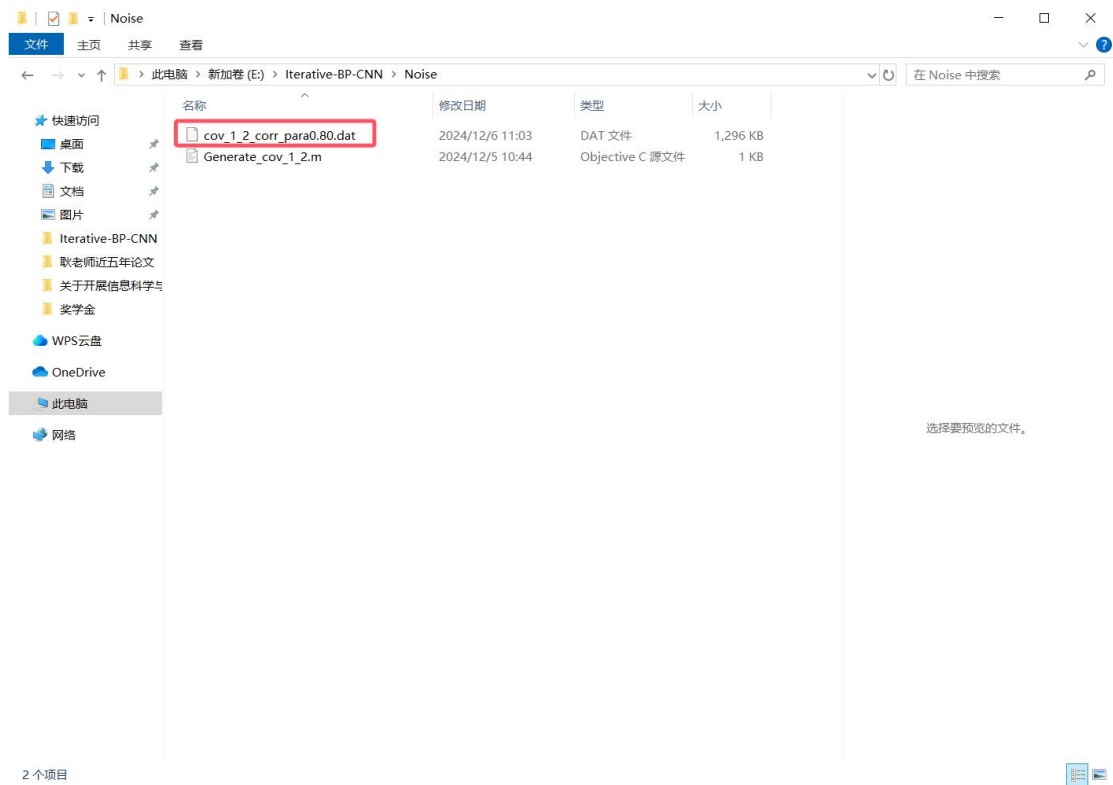
(study) C:\Users\wd>pip list
DEPRECATION: Python 3.5 reached the end of its life on September 13th, 2020. Please upgrade your Python as Python 3.5 is
no longer maintained. pip 21.0 will drop support for Python 3.5 in January 2021. pip 21.0 will remove support for this
functionality.
Package            Version
-----
certifi            2020.6.20
numpy              1.18.5
pip               20.3.4
protobuf          3.19.6
setuptools        40.2.0
six               1.17.0
tensorflow-gpu    1.1.0
werkzeug          1.0.1
wheel             0.37.1
wincertstore      0.2

(study) C:\Users\wd>
```

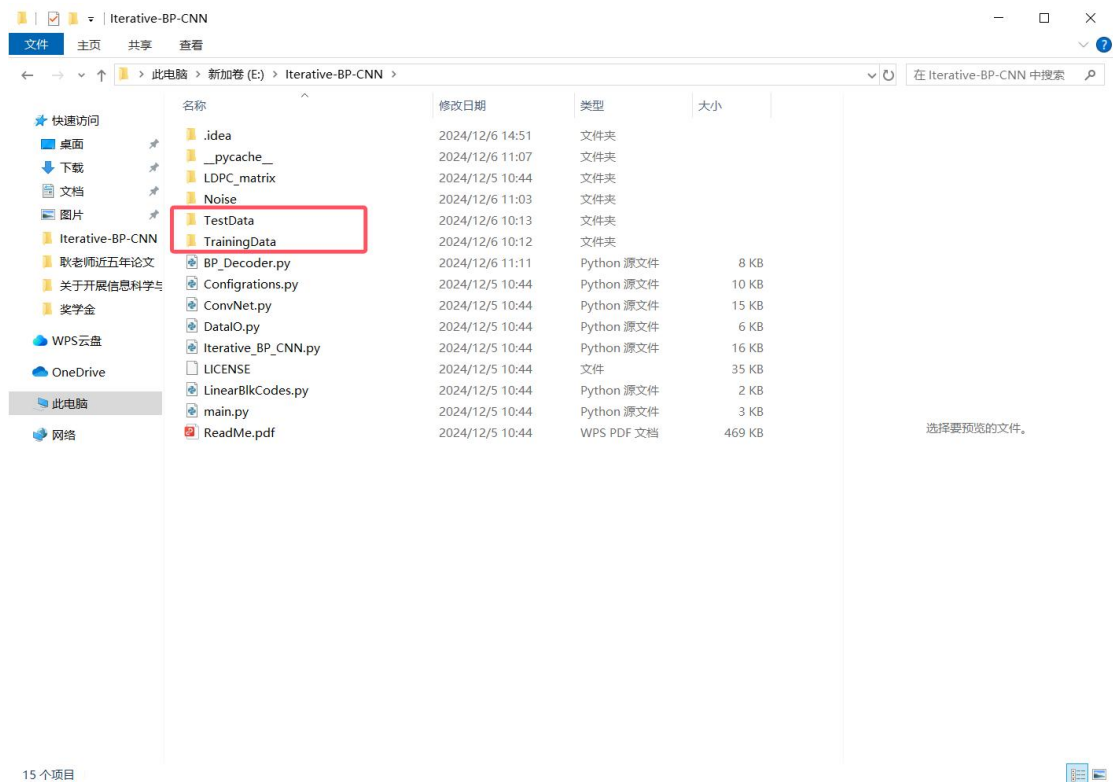
确实成功啦!!!!!!! 开心~

3.运行项目

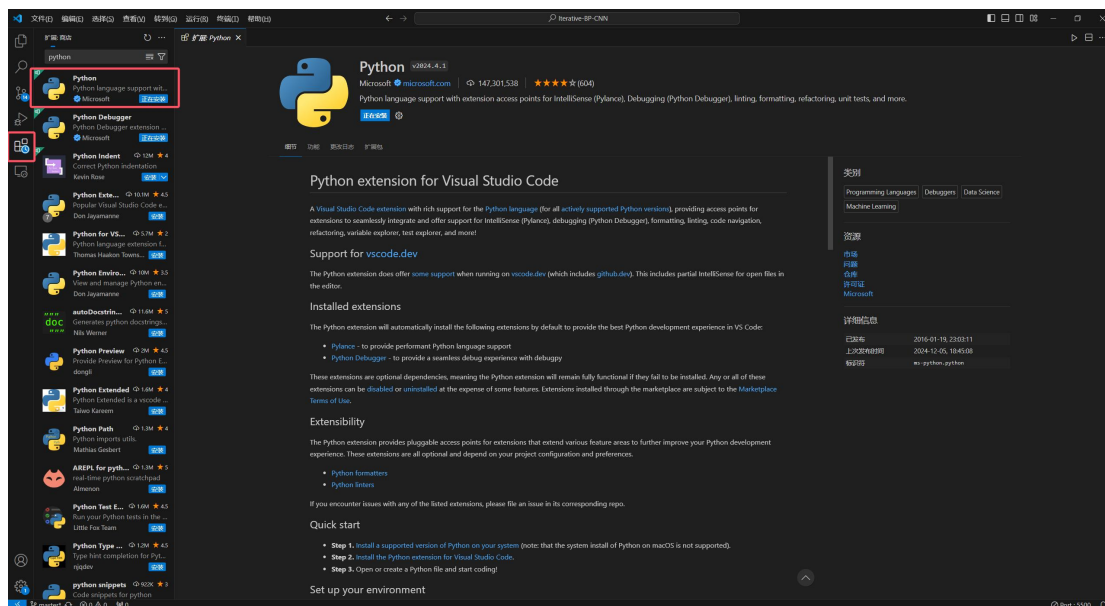
首先运行 matlab 文件 在 Noise 目录下会生成数据



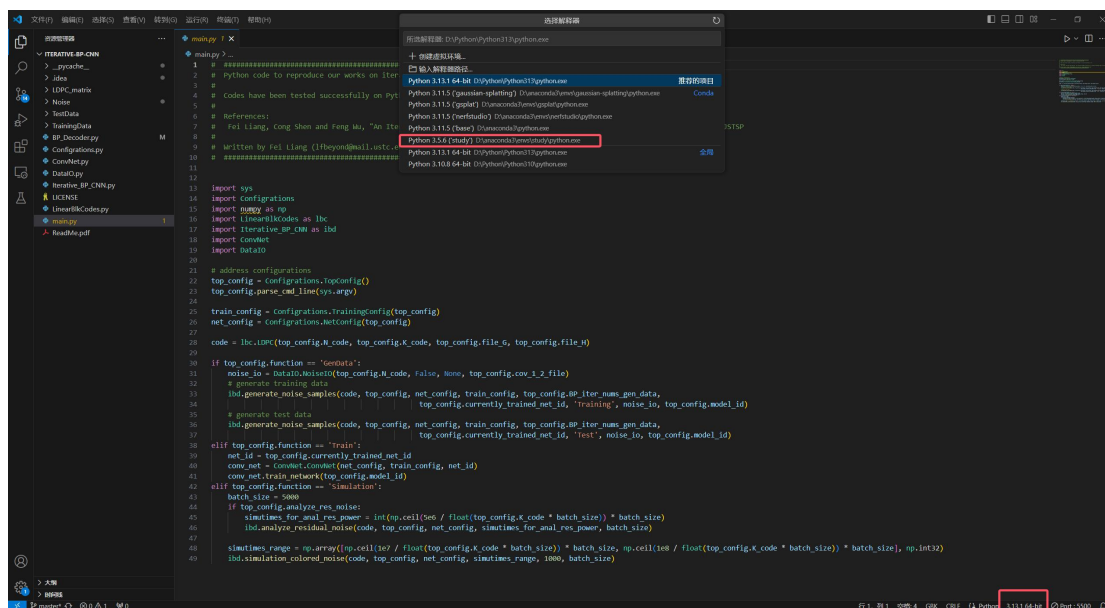
创建两个空的文件夹 TestData 和 TrainingData



用 vscode 打开项目（我个人喜换 vscode~~ 其实是 pycharm 出现问题啦 我不会!!）
安装 python 的扩展



接下来配置好 python 版本 就用刚才的 3.5 版本 找到它！ study 那个环境

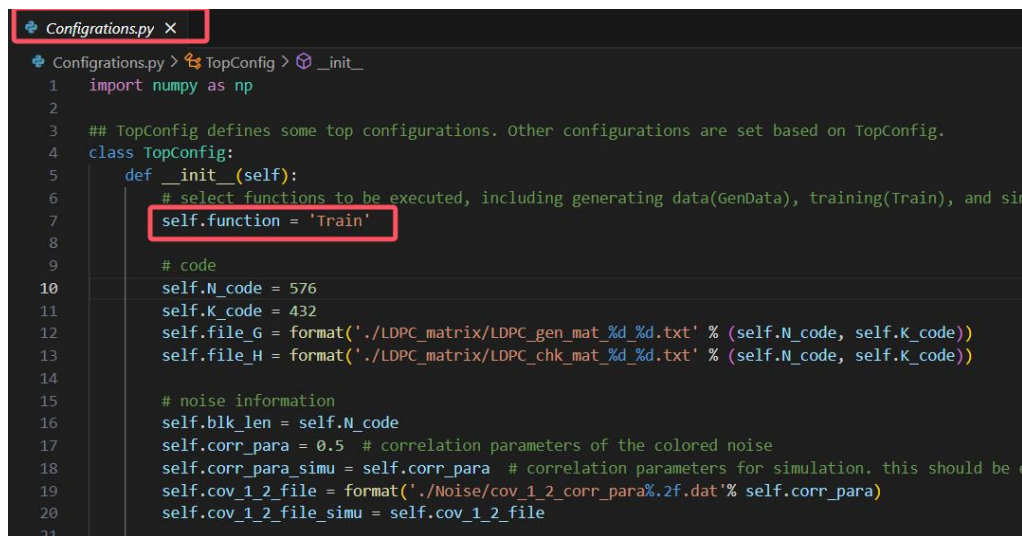
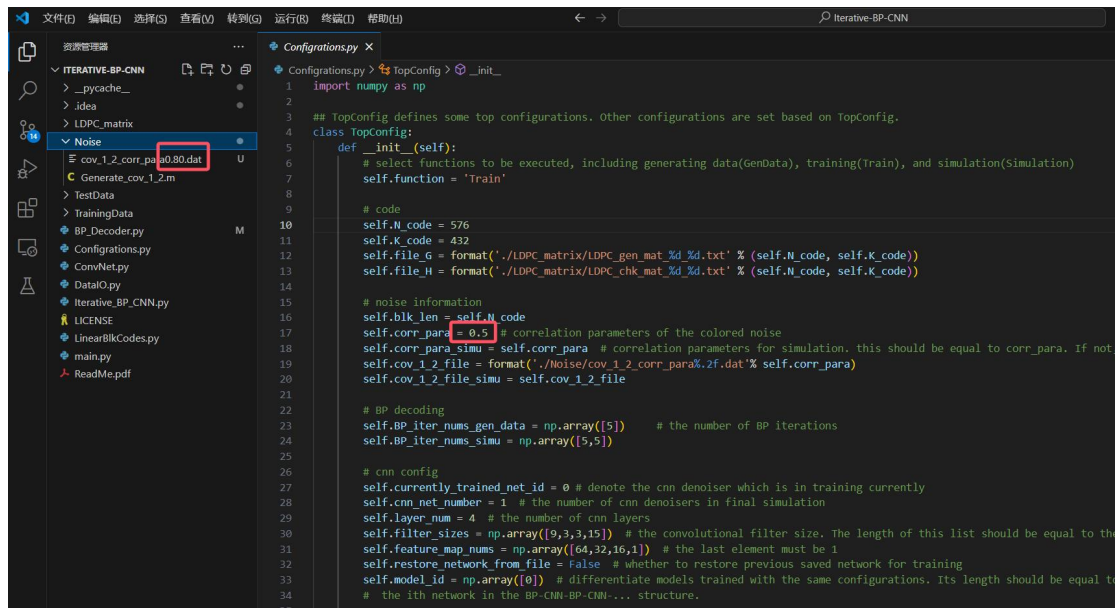


查看配置文件 Configurations.py 大概在第七行有一行 self.function = 'Train'的

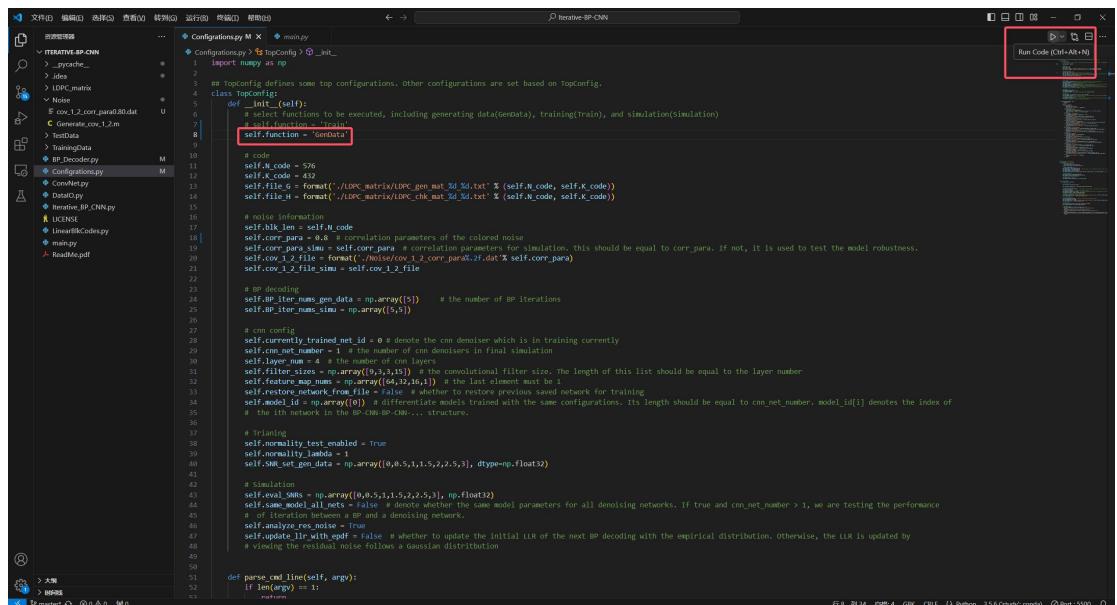
代码 这里的注释分别就代表着 Readme.pdf 里面的三步，GenData Train 以及

Simulation

首先需要改个东西（这个作者把配置写死啦 实际生成的文件后缀是 80 它是 50 修改一下改为 0.8）



首先将 Train 改为 GenData 用于生成数据 然后运行 main.py



后续同理!!!

再改回 Train 运行 main.py 用于训练

最后改为 Simulation 用于仿真