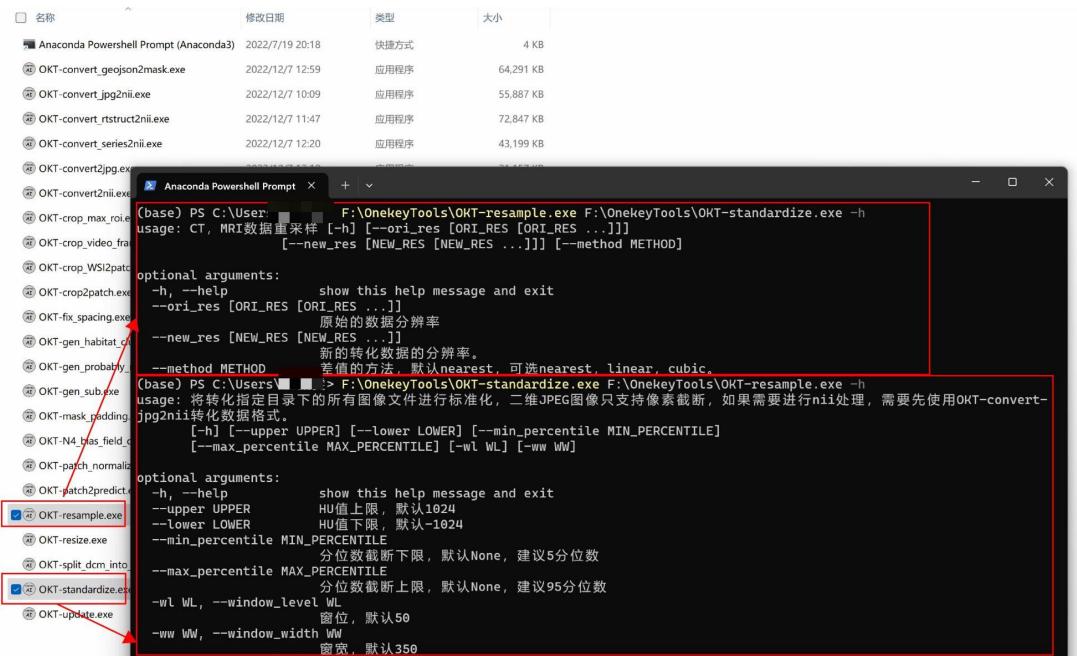


Instructions on Code Execution

一、Traditional Radiomics Model

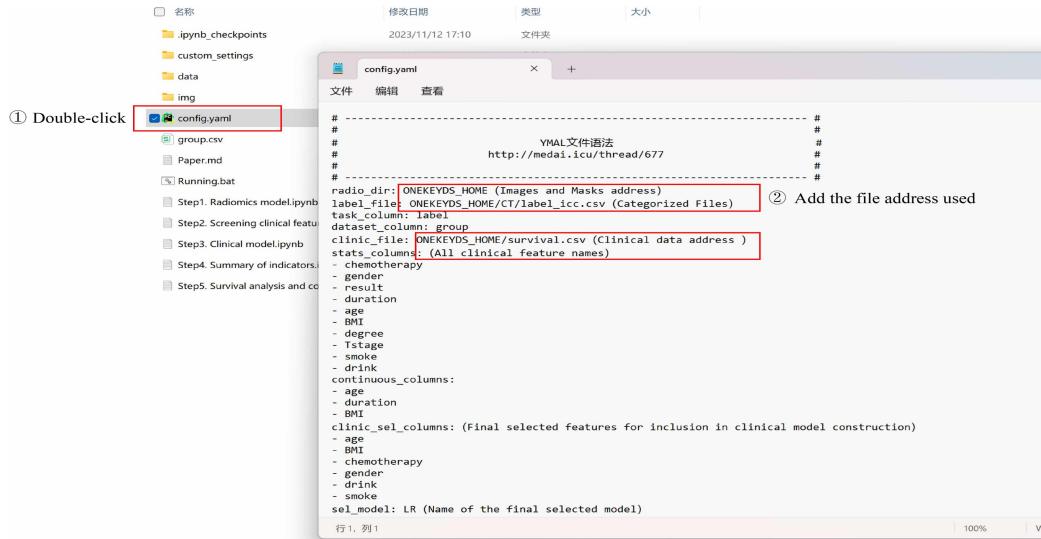
Step 1: Data preparation, resampling and standardization of the data.



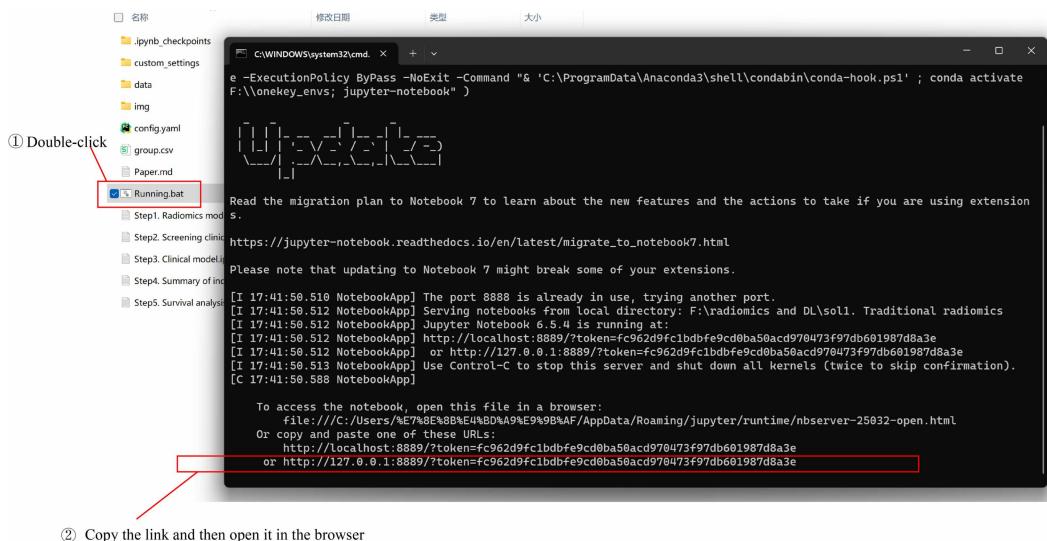
名称	修改日期	类型	大小
images	2022/9/20 15:22	文件夹	
masks	2022/9/20 15:22	文件夹	
label_icc.csv	2022/7/25 8:48	XLS 工作表	5 KB
survival.csv	2023/3/25 20:19	XLS 工作表	11 KB
group.csv	2023/5/16 12:36	XLS 工作表	4 KB

Step 2: Specific operation examples.

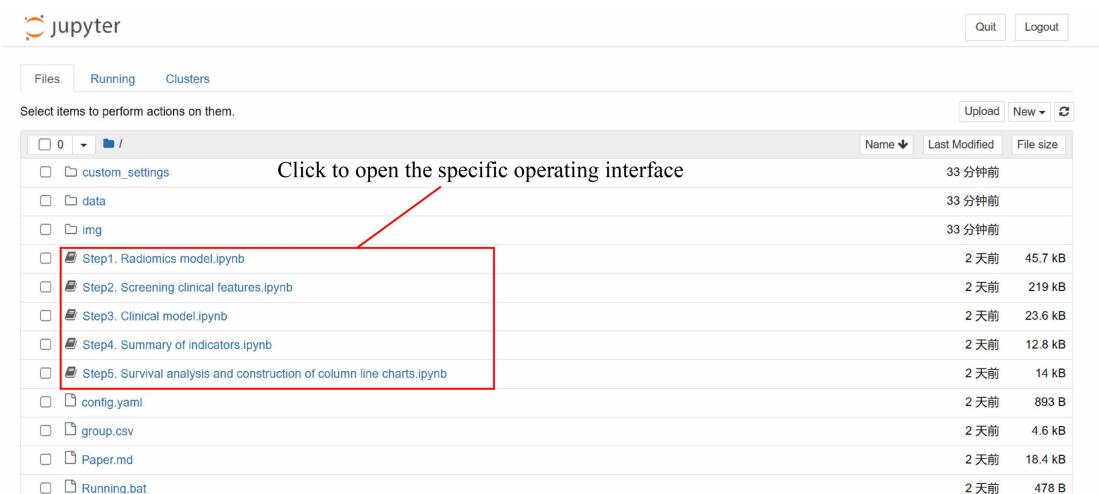
- 1) Enter the traditional Radiomics module, add the file path for the pre-processing files.



2) Open the operating interface.



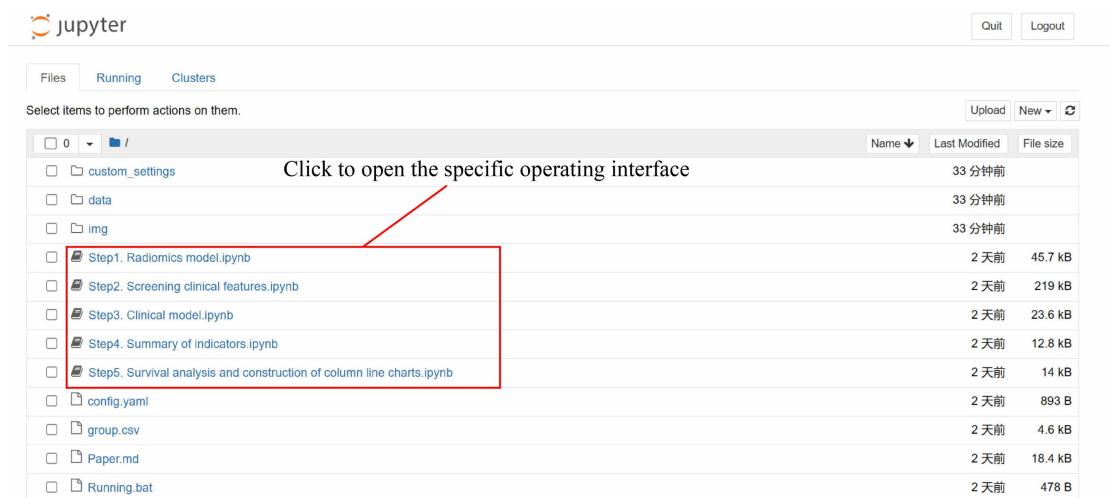
3) The operating interface.



- 4) Enter the operating interface and run the code.



- 5) Click "Run" to start, from step 1 to step 5.



- 6) Run Step 2 to filter out clinical features, and at the same time, add the names of clinical features in Figure ① for constructing a clinical model. Before running Step 4, add the best-performing model in Figure ②, and then output all the results.

□ 名称 | 修改日期 | 类型 | 大小

.ipynb_checkpoints	2023/11/12 17:10	文件夹	
custom_settings	2023/11/12 17:10	文件夹	
data	2023/11/12 17:10	文件夹	
img	2023/11/12 18:37	文件夹	
config.yaml	2023/11/12 18:23	YAML 文件	
group.csv	2023/11/12 17:53	XLS 工作表	5 KB
Paper.md	2023/11/10 21:39	MD 文件	18 KB
Running.bat	2023/11/10 21:39	Windows 批处理文件	1 KB
Step1. Radiomics model.ipynb	2023/11/12 17:55	IPYNB 文件	157,845 KB
Step2. Screening clinical features.ipynb	2023/11/12 18:23	IPYNB 文件	205 KB
Step3. Clinical model.ipynb	2023/11/12 18:28	IPYNB 文件	5,187 KB
Step4. Summary of indicators.ipynb	2023/11/12 18:29	IPYNB 文件	1,830 KB
Step5. Survival analysis and construction ...	2023/11/12 18:55	IPYNB 文件	1,790 KB

config.yaml

```

# -----
#          YML文件语法
#          http://medai.icu/thread/677
# -----
# radio_dir: ONEKEYDS_HOME (Images and Masks address)
label_file: ONEKEYDS_HOME/CT/label_icc.csv (Categorized Files)
task_column: label
dataset_column: group
clinic_file: ONEKEYDS_HOME/survival.csv (Clinical data address )
stats_columns: (All clinical feature names)
- chemotherapy
- gender
- result
- duration
- age
- BMI
- degree
- Tstage
- smoke
- drink
continuous_columns:
- age
- duration
- BMI
clinic_sel_columns: (Final selected features for inclusion in clinical model construction) ①
- age
- BMI
- chemotherapy
- gender
- drink
- smoke
sel_model: LR (Name of the final selected model) ②

```

行 1, 列 1 | 100% | W

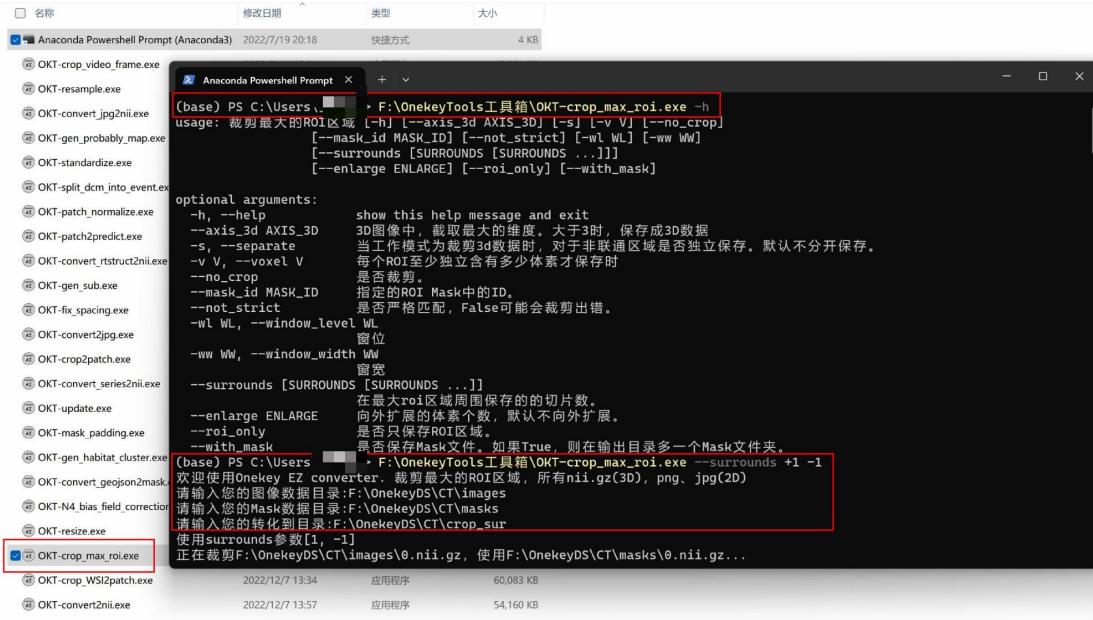
7) Check the final results in the section outlined in the figure.

□ 名称 | 修改日期 | 类型 | 大小

.ipynb_checkpoints	2023/11/12 18:37	文件夹	
custom_settings	2023/11/12 17:10	文件夹	
data	2023/11/12 17:10	文件夹	
img	2023/11/12 18:37	文件夹	
models	2023/11/12 17:52	文件夹	
results	2023/11/12 18:37	文件夹	
clinic_sel.csv	2023/11/12 18:37	XLS 工作表	10 KB
config.yaml	2023/11/12 18:23	YAML 文件	1 KB
group.csv	2023/11/12 17:53	XLS 工作表	5 KB
nomogram.png	2023/11/12 18:54	PNG 文件	90 KB
Paper.md	2023/11/10 21:39	MD 文件	18 KB
Running.bat	2023/11/10 21:39	Windows 批处理文件	1 KB
stats.csv	2023/11/12 18:23	XLS 工作表	2 KB
Step1. Radiomics model.ipynb	2023/11/12 17:55	IPYNB 文件	157,845 KB
Step2. Screening clinical features.ipynb	2023/11/12 18:23	IPYNB 文件	205 KB
Step3. Clinical model.ipynb	2023/11/12 18:28	IPYNB 文件	5,187 KB
Step4. Summary of indicators.ipynb	2023/11/12 18:29	IPYNB 文件	1,830 KB
Step5. Survival analysis and construction ...	2023/11/12 18:55	IPYNB 文件	1,790 KB

二、Deep Learning Model

Step 1: Data Preparation. Use the crop tool to capture the maximum ROI layer and the adjacent upper and lower layers, and save them to the crop_sur folder.



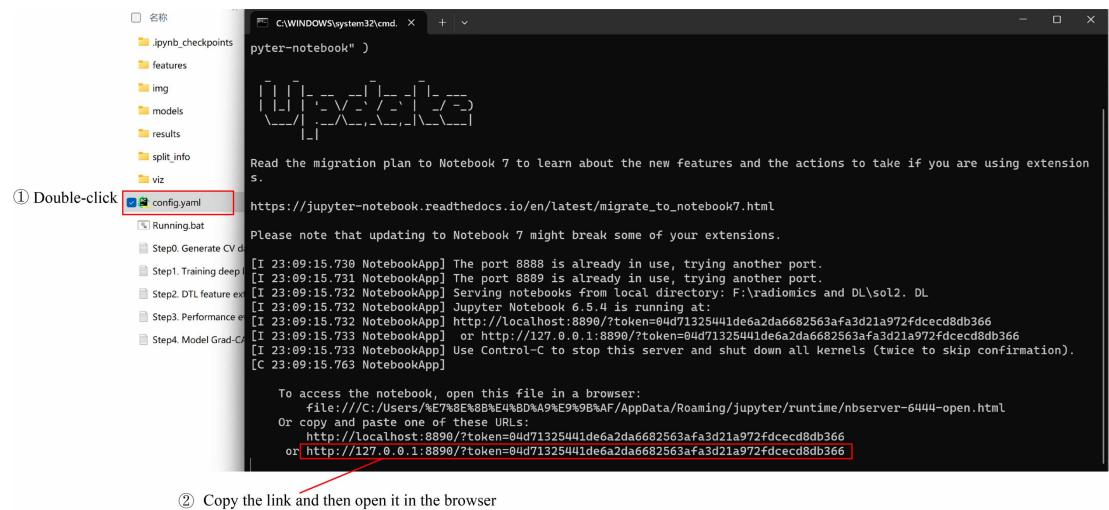
名称	修改日期	类型	大小
crop_sur	2023/11/10 23:28	文件夹	
images	2022/9/20 15:22	文件夹	
masks	2022/9/20 15:22	文件夹	

Step 2: Specific operation examples.

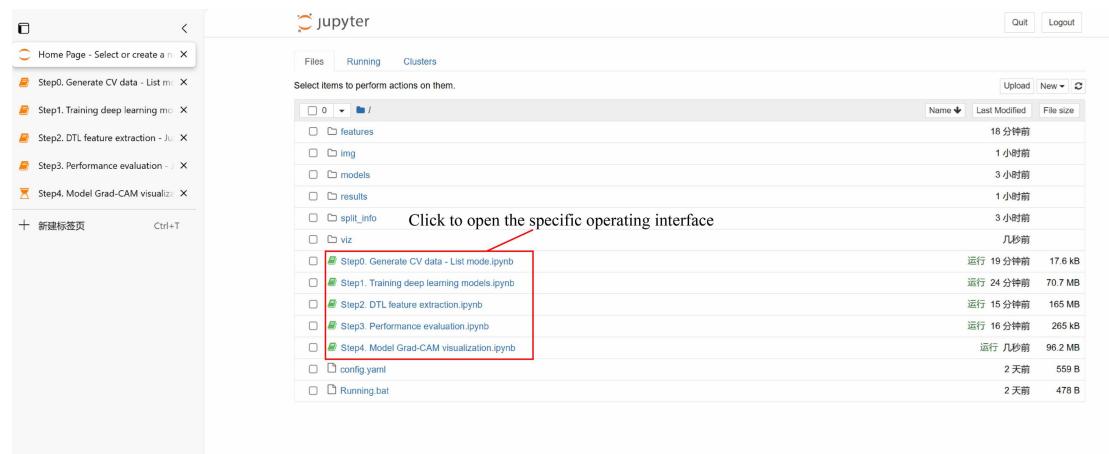
1) Enter the DL module, add the file path for the pre-processing files.



2) Open the operating interface.



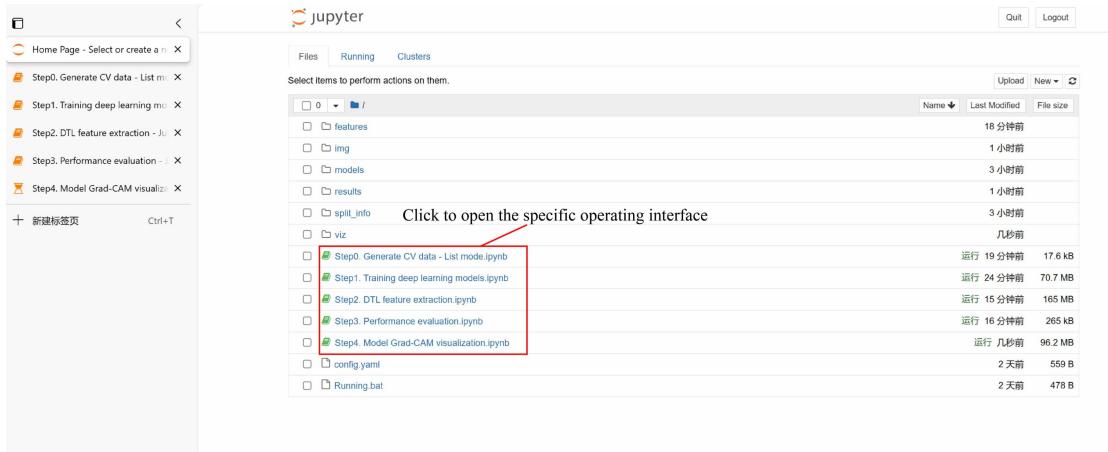
3) The operating interface.



4) Enter the operating interface and run the code.



5) Click "Run" to start, from step 0 to step 4.



6) Check the final results in the section outlined in the figure.

名称	修改日期	类型	大小
.ipynb_checkpoints	2023/11/12 20:19	文件夹	
features	2023/11/12 20:16	文件夹	
img	2023/11/12 19:13	文件夹	
models	2023/11/12 17:10	文件夹	
results	2023/11/12 19:13	文件夹	
split_info	2023/11/12 17:10	文件夹	
viz	2023/11/12 20:46	文件夹	
config.yaml	2023/11/11 0:03	YAML 文件	1 KB
Running.bat	2023/11/10 21:39	Windows 批处理文件	1 KB
Step0. Generate CV data - List mode.ipynb	2023/11/12 20:16	IPYNB 文件	18 KB
Step1. Training deep learning models.ipynb	2023/11/12 20:11	IPYNB 文件	69,025 KB
Step2. DTL feature extraction.ipynb	2023/11/12 20:19	IPYNB 文件	161,563 KB
Step3. Performance evaluation.ipynb	2023/11/12 20:18	IPYNB 文件	260 KB
Step4. Model Grad-CAM visualization.ipynb	2023/11/12 20:48	IPYNB 文件	128,999 KB