

1- Data preparation

- a) A zip file called QIAI-FL.zip will be shared with you
- b) Extract the zip file by right clicking on it and selecting extract
- c) Create three Excel files named train.csv, val.csv, and test.csv containing these two columns: “*Directory*” and “*Label*” and put them inside the data directory

Example of csv file:

	A	B
1	Directory	Label
2	CNV/1/000_Drusen.jpg	DRUSEN
3	CNV/1/001_Drusen.jpg	DRUSEN
4	CNV/1/002_Drusen.jpg	DRUSEN
5	CNV/1/003_Normal.jpg	NORMAL
6	CNV/1/004_Normal.jpg	NORMAL
7	CNV/1/005_Drusen.jpg	DRUSEN
8	CNV/1/006_Normal.jpg	NORMAL
9	CNV/1/007_Normal.jpg	NORMAL
10	CNV/1/008_Drusen.jpg	DRUSEN
11	CNV/1/009_Drusen.jpg	DRUSEN
12	CNV/1/010_Drusen.jpg	DRUSEN

Other information can also be provided; however the csv file must contain the two mentioned columns.

2- Install Python

- a) Go to the Python website using this [link](#)
- b) Download Python [3.12.7](#)
- c) Right click on the installer and select “Run as Administrator”. Make sure to check the box that says “Add Python to PATH” before clicking “Install Now”.



- d) Make sure the python has been installed successfully by opening the terminal (CMD) and entering: `python --version`

```
Command Prompt
Microsoft Windows [Version 10.0.26100.2033]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Sina Gholami>python --version
Python 3.11.4

C:\Users\Sina Gholami>
```

3- Creating a Python Virtual Environment:

- a) Open Command Prompt:
 - Press the Windows key + R on your keyboard
 - Type cmd and press Enter
- b) Navigate to the project we shared with you
 - In the Command Prompt window, type cd followed by the path to your project folder (in example below the path is D:\phd\projects\Thyroid Eye Disease)
 - Press Enter
- c) Create the virtual environment and install packages using the following commands:
 - Type “python -m venv qiai-lab” and press Enter (qiai-lab is the name of the virtual python environment. You can any arbitrary name)
 - Then type “qiai-lab\Scripts\activate” and press Enter
 - You should see (qiai-lab) at the beginning of your command prompt line. This means the virtual environment is active
 - Install pytorch library using the command:
“pip3 install torch torchvision torchaudio --index-url https://download.pytorch.org/whl/cu124”

```
D:\phd\projects\Thyroid Eye Disease>python -m venv qiai-lab
D:\phd\projects\Thyroid Eye Disease>qiai-lab\Scripts\activate
(qiai-lab) D:\phd\projects\Thyroid Eye Disease>pip3 install torch torchvision torchaudio --index-url https://download.pytorch.org/whl/cu124
Looking in indexes: https://download.pytorch.org/whl/cu124
Collecting torch
  Downloading https://download.pytorch.org/whl/cu124/torch-2.5.1%2Bcu124-cp311-cp311-win_amd64.whl (2510.8 MB)
1.4/2.5 GB 131.2 MB/s eta 0:00:09
```

- Ensure you have the requirements.txt file in your project folder
- In the Command Prompt, type “pip install -r requirements.txt” and press Enter

```
(qiai-lab) D:\phd\projects\Thyroid Eye Disease>pip install -r requirement.txt
Collecting lightning (from -r requirement.txt (line 1))
  Using cached lightning-2.4.0-py3-none-any.whl (810 kB)
Collecting scikit-learn (from -r requirement.txt (line 2))
  Using cached scikit_learn-1.5.2-cp311-cp311-win_amd64.whl (11.0 MB)
Collecting tensorboard (from -r requirement.txt (line 3))
```

4- Run the program

- a) Navigate to the project folder using `cd` command.
- b) Activate the virtual environment:
 - a. Type `"python -m venv qiai-lab"` and press Enter.
- c) Open the terminal and enter:
 - a. Python `"train_local.py"`