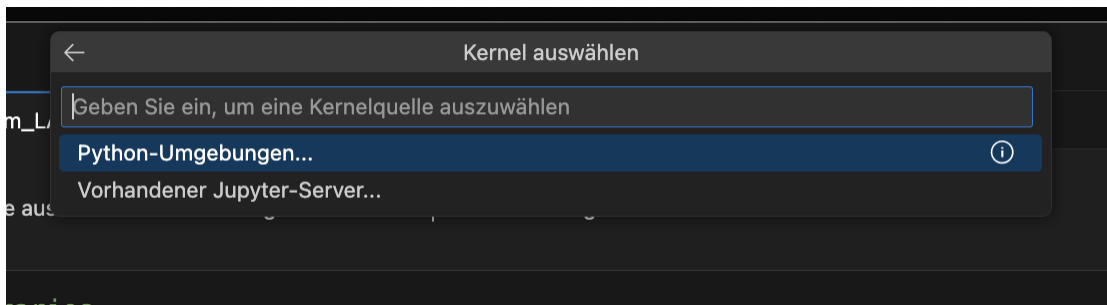
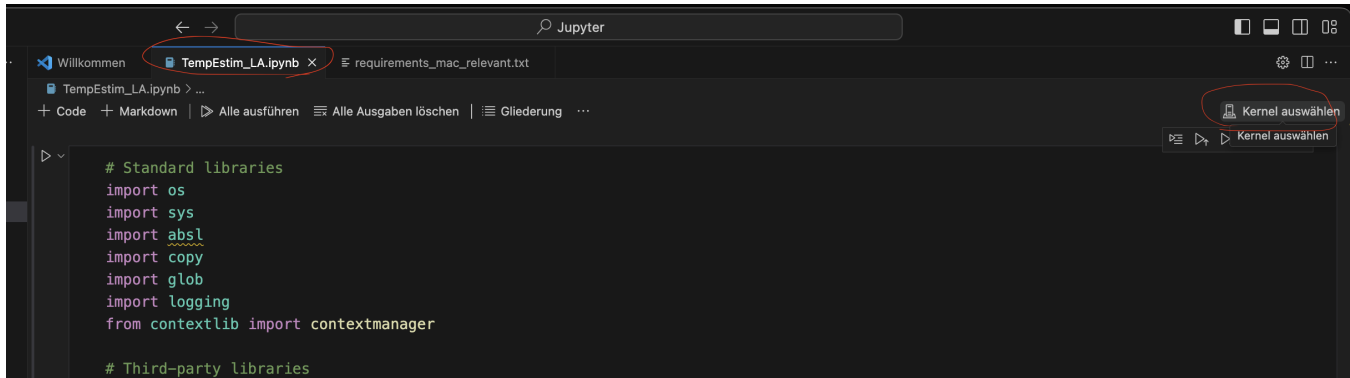
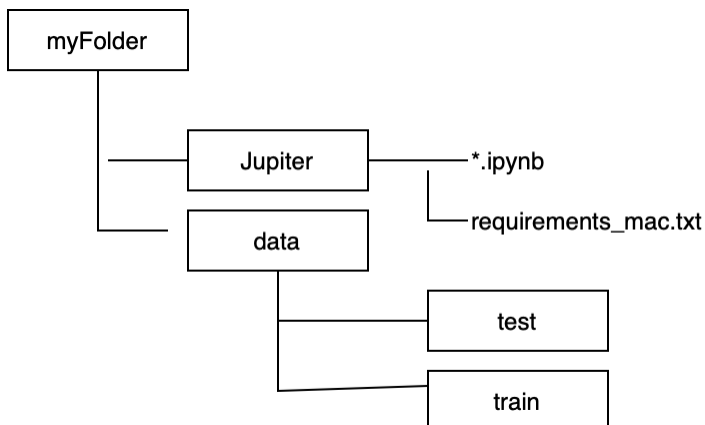


10. Jupyter notebook

- Condition
 - Tensorflow (what we have) supports python from 3.9.x to 3.12.x
 - Bevor installation, you have to find out where you appreciate python is installed.
 - For this project: Please use python 3.11.9
 - in my case:



- Create two folder for test data and train data:

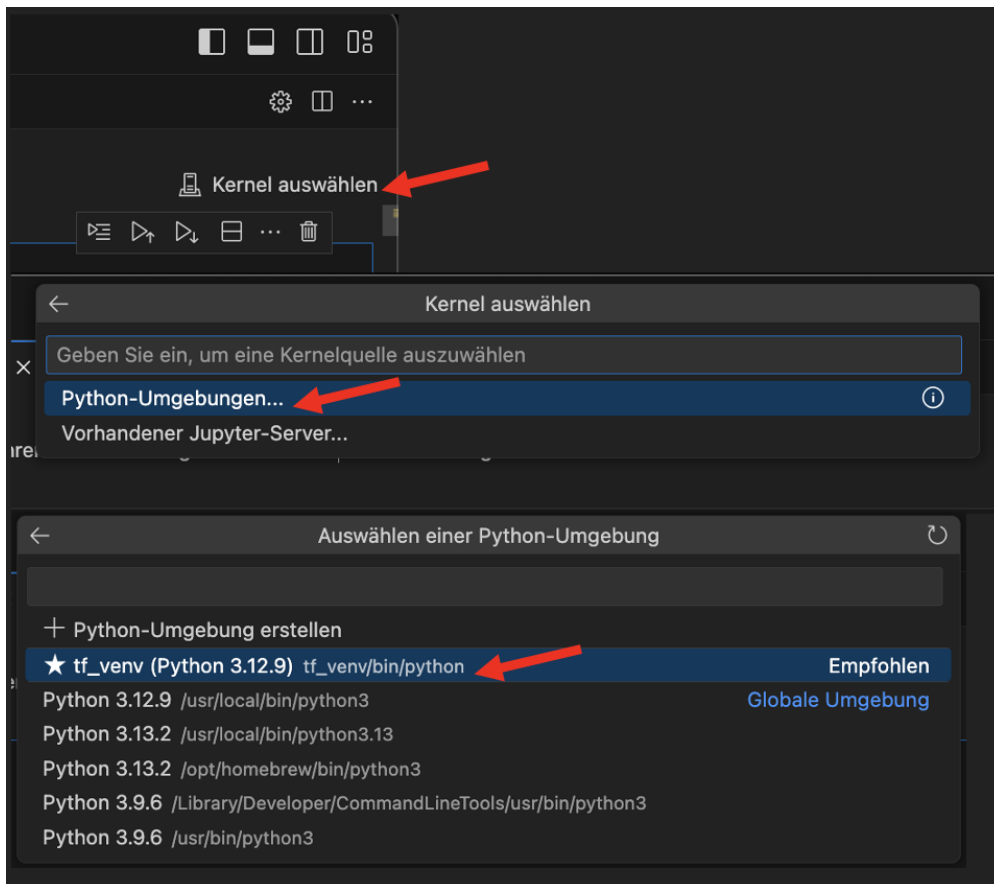


- Data what you need under "/Jupyter":
 - requirements_mac.txt or requirements_win.txt
 - *.ipynb
 - /myFolder/Jupyter/requirement_#.txt
 - /myFolder/Jupyter/*.ipynb
- Open the folder "Jupyter".
- Ensure, you are in "/Jupyter".
- Please check python version: **python3 --version**
 - for TF lite lower than Python 3.12.9
 - for TF & *.mat lower than Python 3.11.9
- Create a virtual environment for python in terminal of VS code: **python3 -m venv tf_venv**
- Activate the virtual environment :
 - für MAC: **source ./tf_venv/bin/activate** it creates myFolder/Jupyter/tf_venv
 - für Windows: **source**
- Now your cursor should be in in /tf_venv.
- Install all required packages : **pip3 install -r requirements_mac_relevant.txt**

```
The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
• Mac-TEST-WQ4TL493NF:testJupyter cvs_macbook4$ python3 -m venv tf_venv 1. Create venv
• Mac-TEST-WQ4TL493NF:testJupyter cvs_macbook4$ ls
requirements_mac.txt  sinus_test.ipynb  tf_venv 2. Activate venv
• Mac-TEST-WQ4TL493NF:testJupyter cvs_macbook4$ source ./tf_venv/bin/activate 3. Install req.
• (tf_venv) Mac-TEST-WQ4TL493NF:testJupyter cvs_macbook4$ pip3 install -r requirements_mac.txt
Collecting absl-pv==2.1.0 (from -r requirements_mac.txt (line 1))

Now you are in the virtual environment.
```

- Open "*.ipynb" file.
- Select the python environment in VS Code as following: "Kernel auswählen Python-Umgebungen tf_venv(python 3.12.xx)"



You are ready to train the model.

```
target_dir_train = "../train"
target_dir_test = "../test"
```