

STEP-BY-STEP PROCEDURE FOR YOLOv11

Step-1: create a folder(yolov11_numplate)

Step-2:create a folder which contains images that are going to be trained and validated

Step-3:Run commands on terminal

Step-4:<https://pytorch.org/get-started/locally/>

Step-5:In label studio(create project)do annotation manually

Step-6:Export the project into the environment

Step-7:Create a separate folder train(contains all the images and labels) and val(contains some images and labels)

Step-8:create a python file(train.py) and yaml file (data_custom.yaml) and download a yolomodel from <https://github.com/ultralytics/ultralytics?tab=readme-ov-file>

Step-9:Now run python train.py on terminal

Step-10:In(RUN>DETECT>TRAIN)best.pt—copy and paste it on environment as(yolov11.pt)

Step-11:Create a predict.py file and run it on terminal

TERMINAL PROGRAM

```
cd environment
conda create -n yolov11_numplate python=3.11 -y
conda activate yolov11_numplate
pip install ultralytics
Python
>>>import torch
>>>torch.cuda.is_available()
If false——exit()
install pytorch from pytorch web(pip3 install torch torchvision torchaudio --index-url
https://download.pytorch.org/whl/cu121)
true——exit()
Pip install label-studio
Label-studio
Python train.py
Python predict.py
```

PROGRAM FOR train.py

```
from ultralytics import YOLO
model = YOLO("yolo11m.pt")
model.train(data = "data_custom.yaml", imgsz = 640, batch = 4, epochs = 100, workers = 0,
device = 0)
```

PROGRAM FOR data_custom.yaml

```
train: C:\Users\mdfah\OneDrive\Documents\yolov11_numplate\train
val: C:\Users\mdfah\OneDrive\Documents\yolov11_numplate\val
nc: 2
names: ["car", "taxi"]
```

PROGRAM FOR predict.py

```
from ultralytics import YOLO
model = YOLO("yolov11.pt")
model.predict(source = "4.jpg", show=True, save=True, conf=0.4)
```