Method 1

**How to train transfer learning (assuming the model is not trained)**

1. open face\_detection/maskDetectionNN.py
2. uncomment 2 lines at the very bottom off the file “model = modelInitAndTraining()” and “save\_model()” and comment “model = load\_model()”
3. save the file
4. run the file
5. comment 2 lines at the very bottom off the file “model = modelInitAndTraining()” and “save\_model()” and uncomment “model = load\_model()”
6. save the file

**How to use**

1. Install python virtual environment:
   1. pip install --upgrade virtualenv (for mac)
2. run “virtualenv -p python3.6 yoloface” (if you do this for the first time)
3. run “source ./yoloface/bin/activate”
4. run “pip install -r requirements.txt” (if you do this for the first time)
5. run “python yoloface.py --image samples/mask361.png --output-dir outputs/” -for detection

for more information <https://github.com/sthanhng/yoloface>

You can see how we mainly changed the original code in utils.py - post\_process and draw\_predict functions

Method 2

**How to train (assuming the model is not trained)**

<https://github.com/Sergey1838/yolo_face_mask_detection>

All instructions including data preprocessing are in the repository

**How to use**

Run “python detect.py --source 0 –weights runs/train/onehund\_epochs\_small/weights/best.pt” in yolov5 directory

* onehund\_epochs\_small – is a name specified when training
* source 0 is a webcam it also can be a path to an image or a video

for more information: <https://github.com/ultralytics/yolov5>

YoloV5\_face\_masks.ipynb – is google colab notebook we used to train this model