Detection

Dataset: /root/autodl-tmp/detection/VOC2019/JPEGImages/

Model: YOLOv4-tiny

mAP@0.50: 0.973811

trained weights: /root/darknet/backup/yolov4-tiny-obj_best.weights

Run test:

```
./darknet detector test data/obj.data cfg/yolov4-tiny-obj.cfg backup/yolov4-tiny-obj_best.weights
```

Verification

Dataset

Path: /root/autodl-tmp/verification/ROI

200 (volunteers) * 80 = 16000 images

Images are square, but sizes vary.

Name example: 001_1_h_l_01_ROI.jpeg

The palmprint images are named according to the following rules:

- The first three digits, taking “001” as an example, indicate that this palm image was taken from the volunteer numbered 1
- the fifth digit, “1” for example, means that this palm image was taken in the first period
- for the seventh digit, “h” means that this palm image was taken by Huawei and “m” means this photo was taken by Xiaomi
- for the ninth digit, “l” indicates that this palm image was taken from the left hand of the volunteer and “r” indicates that this image was taken from the right hand
- the last two digits show the number of the palm image taken by the same volunteer with the same hand at the same time using the same smartphone.

For instance, a palm image named “006_2_h_r_08.jpg” is a picture taken from the right hand of our sixth volunteer (No. 6) using Huawei mobile phone in the second period.

Data Augmentation

- RandomResizedCrop: scale and ra- tio are both [0.75, 1.25]

- ColorJintter: brightness is 0.25, the rest of parameters are all 0.15
- Horizon- tal Flip

For MBFN in MPD,

- RandomResizedCrop: scale and ratio are both [0.75, 1.25]
- ColorJintter: brightness is 0.25, the rest of parameters are all 0.1
- Horizontal Flip.