# inference部分

## generate_detections.py

入口脚本，可在其中设置model的路径（变量model），以及提取特征的图片大小（变量image_shape，需与训练模型的image_shape保持一致）

## generate_detections.py

Inference模型结构

| 层名称 | 卷积核大小/步长 | 输出feature map尺寸 |
| --- | --- | --- |
| Conv 1 | 3x3/1 | 32 x 128 x 64 |
| Conv 2 | 3x3/1 | 32 x 128 x 64 |
| Max pool 3 | 3x3/2 | 32 x 64 x 32 |
| Residual 4 | 3x3/1 | 32 x 64 x 32 |
| Residual 5 | 3x3/1 | 32 x 64 x 32 |
| Residual 6 | 3x3/2 | 64 x 32 x 16 |
| Residual 7 | 3x3/1 | 64 x 32 x 16 |
| Residual 8 | 3x3/2 | 128 x 16 x 8 |
| Residual 9 | 3x3/1 | 128 x 16 x 8 |
| Dense 10 |  | 128 |
| Batch and l2 Normalization |  | 128 |

## 脚本使用示例

```
python generate_detections.py \
    --sequence_dir=/home/lichen/MOT/MOT17/train/MOT17-13-FRCNN \
    --detection_txt=/home/lichen/MOT/MOT17/train/MOT17-13-FRCNN/det/det.txt
\
    --detection_npy==/home/lichen/MOT/MOT17/train/MOT17-13-
FRCNN/det/det.npy
```

# training部分

训练集：

L. Zheng, Z. Bie, Y. Sun, J. Wang, C. Su, S. Wang, and Q. Tian, “MARS: A video benchmark for large-scale person re-identification,” in ECCV, 2016.

## train.py

模型训练脚本，具体参数可在脚本中设置

```
ckpt_path=None # None for training from scratch, '/path' for training from a checkpoint
image_shape = 128, 64, 3 # training image shape
num_classes = 1259 # number of classes of training dataset(Mars)
learning_rate_base = 0.01 # learning rate
learning_rate_decay_interval = 7500 # learning rate decays every 7500 steps
learning_rate_decay = 0.99 # decay rate of learning rate
epochs = 2 # number of training epochs
batch_size = 32 # training batch size
model_save_path = 'model' # model save path(model will be saved every 1000 steps)
max_to_keep = 100 # max number of saved models
log_file_path = 'log/train.log' # log saved file
```

## train_features.py

training模型结构，相比于inference模型多了softmax loss用于进行分类训练

## 脚本使用示例

```
python train.py --sequence_dir=/path/to/training/dataset
```