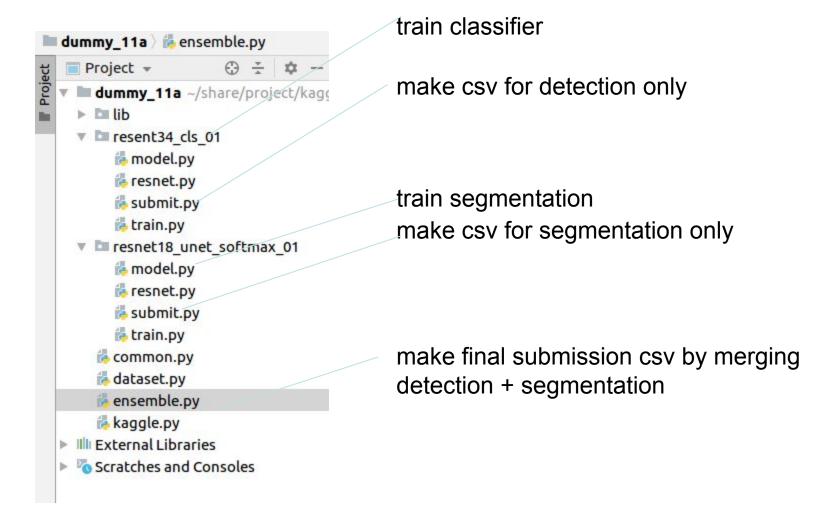


the classification and segmentation are trained seperately

code: version dummy_11a



The detection and segmentation code are similar. We explain how to use the code using segmentation.

```
resent34 cls 01/train.py × resent34 cls 01/submit.py ×
resnet18 unet softmax 01/train.py ×
                                                                                        ensemble.p
Q- loss weight
137
138
139
        def run train():
140
141
            out dir = \
142
                  '/root/share/project/kaggle/2019/steel/result1/resnet18-seg-full-softmax-fold
143
144
            initial checkpoint = \
145
                  '/root/share/project/kaggle/2019/steel/result1/resnet18-seg-full-softmax-fold
146
147
148
149
            schduler = NullScheduler(lr=0.001)
            batch size =
150
            iter accum =
151
152
            loss weight = None#[5,5,2,5] #
153
            train sampler = FourBalanceClassSampler #RandomSampler
154
155
```

if the training loss cannot decrease initially, use class weight or balance class sampler. You can finetune without weight + normal random sampler at the end

```
resnet18 unet softmax 01/submit.py × resent34 cls 01/train.py × resent34 cls 01/submit.py ×
                                                                                     ensemble.py
def run submit():
    out dir = \
         '/root/share/project/kaggle/2019/steel/result1/resnet18-seg-full-softmax-foldb1-1-4balance'
    initial checkpoint = \
         '/root/share/project/kaggle/2019/steel/result1/resnet18-seg-full-softmax-foldb1-1-4balance/che
    mode = 'test' #'train' # 'test'
    augment = ['null', 'flip lr','flip ud'] #['null'] # ['null, 'flip lr','flip ud','5crop']
    ## setup
                                    try various setting on your validation set.
                                    you can do grid search, etc ....
        threshold pixel = [0.50, 0.50, 0.50, 0.50, 1]
        threshold size = [200, 1500, 1500, 2000,]
```