2019-05-第二周

CASIA

工作总结与安排

上周工作

- 使用MRCNN模型提取有用信息；

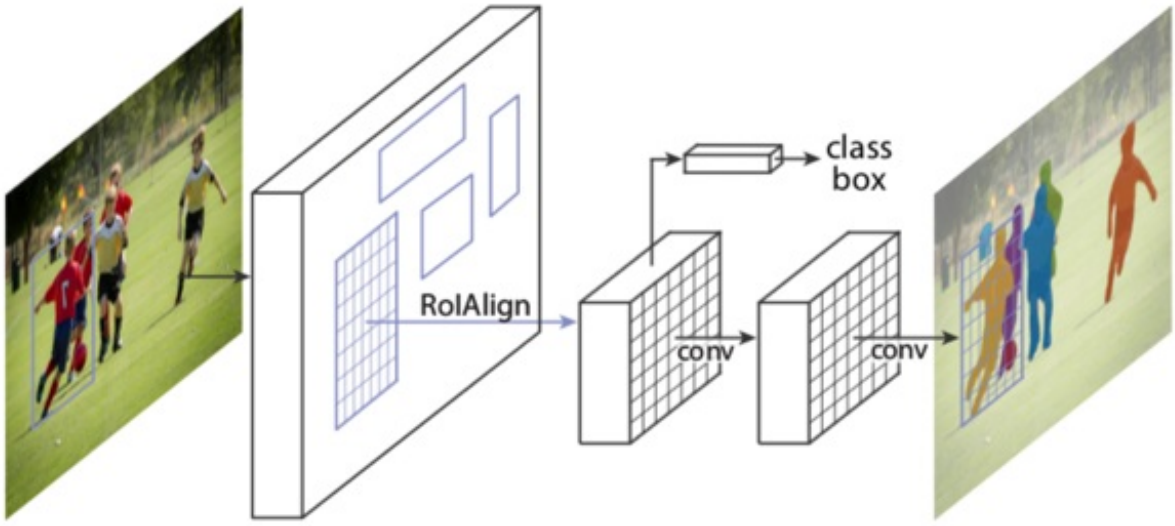
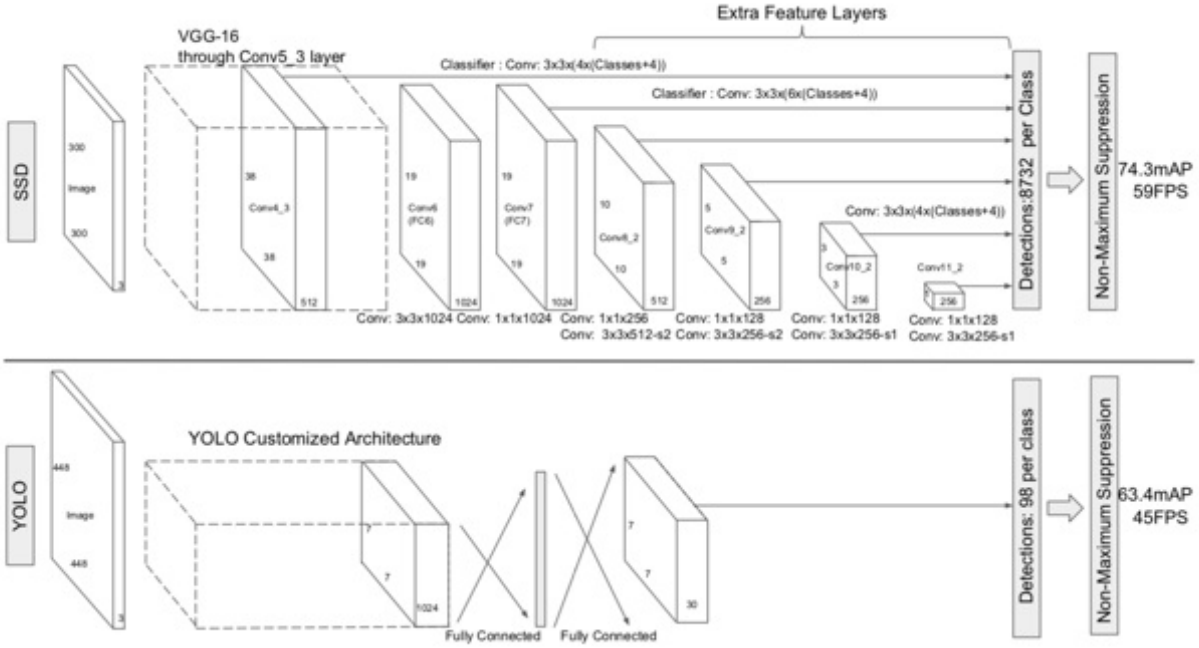


Figure 1. The **Mask R-CNN** framework for instance segmentation.

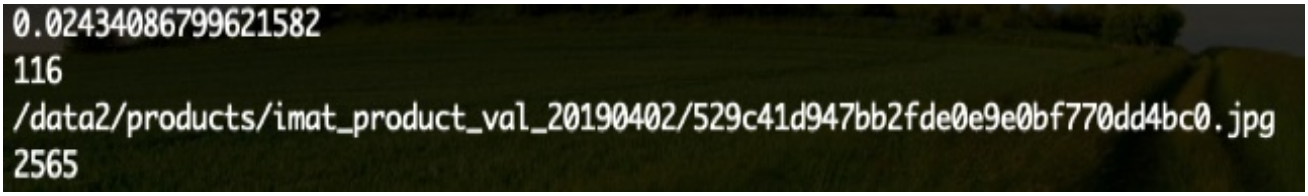
使用MRCNN模型对图片做预测，下面这个数字是使用一块GTX 1080跑一天处理的图片数（大概一秒1张半的样子）；这个方法速度慢，但是基本上每天都可以有结果；

```
553a40a003bf6d84c6ae21e480f73e13.json  aab1ff78da261a52d5cfa14854287421.json
lizhonghuan@user:/data2/products/mrcnn_res/train1$ ls -l |grep "^-"|wc -l
83017
lizhonghuan@user:/data2/products/mrcnn_res/train1$
```

- 使用SSD进行目标检测；



下面这个结果是116/2565，大概可以检测到的信息比率是4.5%，约20ms处理一张；SSD的处理速度较快，但是有大部分图片会没有信息，有信息的话绝大多数是单目标；



下周安排

图像分割
Fully Convolutional Networks for Semantic Segmentation (FCN)
Mask R-CNN
Fully Convolutional Instance-aware Semantic Segmentation(FCIS)
FastFCN: Rethinking Dilated Convolution in the Backbone for Semantic Segmentation
Learning Deconvolution Network for Semantic Segmentation
Learning a Discriminative Feature Network for Semantic Segmentation

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PointRCNN: 3D Object Proposal Generation and Detection from Point Cloud
Escape from Cells: Deep Kd-Networks for the Recognition of 3D Point Cloud Models

图卷积

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