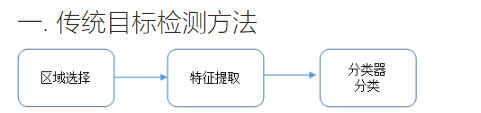
**了解基本：基于深度学习的目标检测研究进展2016.05**

<https://blog.csdn.net/majinlei121/article/details/53814231>





1. R-CNN (CVPR2014, TPAMI2015)
2. SPP-NET (ECCV2014, TPAMI2015)
3. Fast R-CNN(ICCV2015)
4. Faster R-CNN(NIPS2015)



1. YOLO (CVPR2016, oral)
2. SSD

**学习的时候穿插理解各层的意义**

<https://blog.csdn.net/u010859498/article/details/78794405>

1.基础：

CNN学习资料

cs231n <http://cs231n.stanford.edu/>

<https://www.youtube.com/playlist?list=PL3FW7Lu3i5JvHM8ljYj-zLfQRF3EO8sYv>

cs231n学习总结

<https://blog.csdn.net/myarrow/article/details/51878004>

**候选区域的选择：What makes for effective detection proposals？**

<https://blog.csdn.net/shanglianlm/article/details/46786303>

**图像分类网络：**

<https://www.cnblogs.com/52machinelearning/p/5821591.html>

AlexNet vgg googlenet ResNet

**物体检测框架：**

mask-rcnn ssd

**ssd：**<https://blog.csdn.net/neu_chenguangq/article/details/79057655>

<https://blog.csdn.net/mottled233/article/details/78888587>

**mask-rcnn**：<https://blog.csdn.net/xiamentingtao/article/details/78598511>

进阶：

石头哥的笔记：<https://github.com/littlebearsama/AwesomeDeepLearning/tree/master/PoseEstimation>

2. 深度学习是否有估计物体6DOF姿态的相关算法？

<https://www.zhihu.com/question/280235834>

1. **PoseCNN：**[**https://github.com/yuxng/PoseCNN**](https://github.com/yuxng/PoseCNN)
2. **PoseNet:** [**https://github.com/alexgkendall/caffe-posenet**](https://github.com/alexgkendall/caffe-posenet)

**论文：**

**SSD-6D: Making RGB-Based 3D Detection and 6D Pose Estimation Great Again**

<https://github.com/wadimkehl/ssd-6d>

**Real-Time Seamless Single Shot 6D Object Pose Prediction**

基于yolo2的网络结构进行设计，训练数据为RGB图像以及物体对应的pose（只需要bounding box 和 center point）。进行test时，只需要获得这9个点，然后进行PNP，则可以获得物体准确的pose。

**Pose-RCNN: Joint object detection and pose estimation using 3D object proposals**

**Joint Object Category and 3D Pose Estimation from 2D Images**

**6-dof object pose from semantic keypoints**

学习路线：

1. 学习python <http://www.sigai.cn/course_14.html>
2. 安装与学习tensorflow

安装tensorflow教程（tensorflow官网）<http://www.tensorfly.cn/>

1. 配置环境

配置环境：

<https://blog.csdn.net/qq_37972530/article/details/80906461>

<https://blog.csdn.net/weixin_40362972/article/details/79838662>

Ubuntu：tensorflow3.6 + Anaconda+cudann pycharm

先实现tensorflow 手写识别minst

本机环境：ubuntu16.04

显卡：N 1050

2019.02～03

目标：实现

（有源码）SSD-6D：<https://www.sohu.com/a/259206089_715754>

yolo-6D：<https://zhuanlan.zhihu.com/p/41790888>

deep6D：mask-rcnn的6Dpose