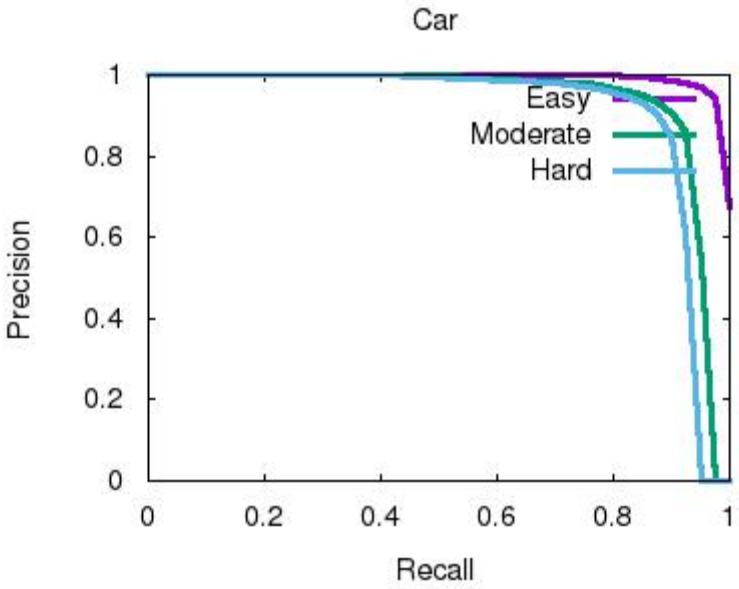
第六章作业报告

本次作业采用了开源的 PointRCNN（https://github.com/sshaoshuai/PointRCNN），时间和设备有限，采用了 github 中提供的 pretrained 的模型，对 car 类目标进行检测。

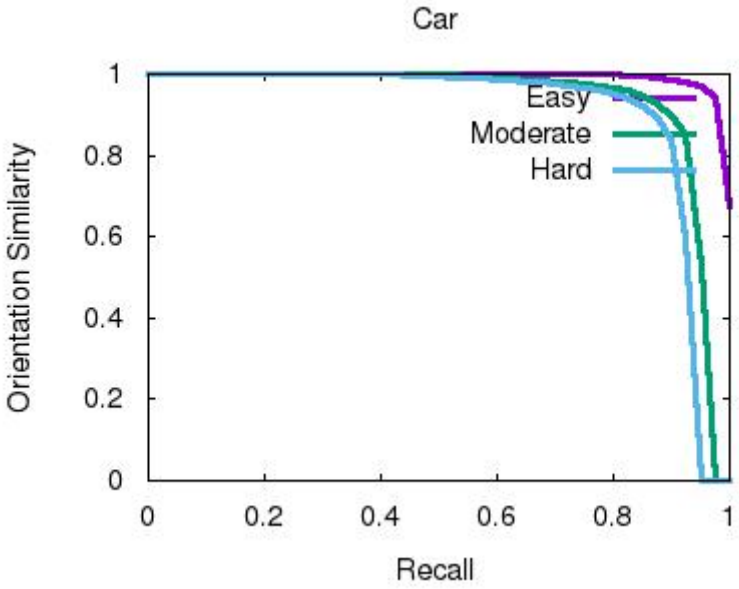
- Evaluation 结果如下：

```
yu@ailab: ~/0_point_cloud_learn/homework/Homework6/kitti_eval
文件(F)  编辑(E)  查看(V)  搜索(S)  终端(T)  帮助(H)
(base) yu@ailab:~/0_point_cloud_learn/homework/Homework6/kitti_eval$ ./evaluate_object_3d_offline /home/yu/0_point_cloud_learn/homework/Po
intRCNN/data/KITTI/object/training/label_2/ /home/yu/0_point_cloud_learn/homework/PointRCNN/output/rcnn/default/eval/epoch_0/val/final_res
ult/
Thank you for participating in our evaluation!
Loading detections...
number of files for evaluation: 3769
  done.
save /home/yu/0_point_cloud_learn/homework/PointRCNN/output/rcnn/default/eval/epoch_0/val/final_result//plot/car_detection.txt
car_detection AP: 96.913376 89.531288 88.749321
PDFCROP 1.38, 2012/11/02 - Copyright (c) 2002-2012 by Heiko Oberdiek.
==> 1 page written on `car_detection.pdf'.
save /home/yu/0_point_cloud_learn/homework/PointRCNN/output/rcnn/default/eval/epoch_0/val/final_result//plot/car_orientation.txt
car_orientation AP: 96.904442 89.406799 88.544968
PDFCROP 1.38, 2012/11/02 - Copyright (c) 2002-2012 by Heiko Oberdiek.
==> 1 page written on `car_orientation.pdf'.
save /home/yu/0_point_cloud_learn/homework/PointRCNN/output/rcnn/default/eval/epoch_0/val/final_result//plot/car_detection_ground.txt
car_detection_ground AP: 90.219002 87.897018 85.519638
PDFCROP 1.38, 2012/11/02 - Copyright (c) 2002-2012 by Heiko Oberdiek.
==> 1 page written on `car_detection_ground.pdf'.
save /home/yu/0_point_cloud_learn/homework/PointRCNN/output/rcnn/default/eval/epoch_0/val/final_result//plot/car_detection_3d.txt
car_detection_3d AP: 89.197334 78.849594 77.912834
PDFCROP 1.38, 2012/11/02 - Copyright (c) 2002-2012 by Heiko Oberdiek.
==> 1 page written on `car_detection_3d.pdf'.
Your evaluation results are available at:
/home/yu/0_point_cloud_learn/homework/PointRCNN/output/rcnn/default/eval/epoch_0/val/final_result/
(base) yu@ailab:~/0_point_cloud_learn/homework/Homework6/kitti_eval$
```

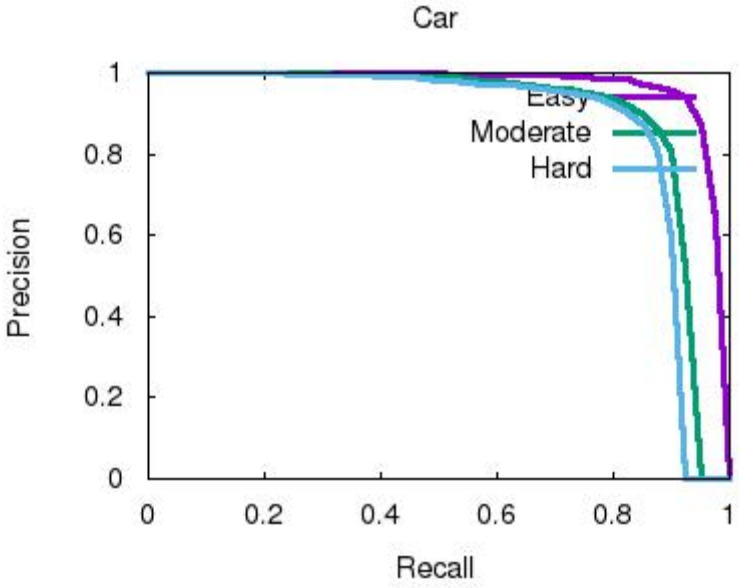
- car_detection AP (2D bbox): 96.913376 89.531288 88.749321



- car_orientation AP (average orientation similarity): 96.904442 89.406799 88.544968



- car_detection_ground AP (bird eyes view): 90.219002 87.897018 85.519638



- car_detection_3d AP(3D bbox): 89.197334 78.849594 77.912834