|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ****two stage 的方法**** | | | | | | | | |
| **算法** | **网络** | **测试图像尺寸** | **VOC**  **2007** | **VOC**  **2010** | **VOC**  **2012** | **ILSVRC**  **2013** | **MSCOCO2015** | **速度** |
| Faster R-CNN | VGG16 | 224\*224 | 78.8% |  | 75.9% |  | 21.9% | 5fps |
| Faster R-CNN | ResNet101 | 224\*224 | 85.6% |  | 83.8% |  | 37.4% | 5fps |
| HyperNet | VGG16 | 1000\*600 | 76.3% |  | 71.4% |  |  | 5fps |
| CRAFT | VGG16 | 224\*224 | 75.7% |  | 71.3% | 48.5% |  |  |
| OHEM | VGG16 | 224\*224 | 78.9% |  | 76.3% |  | 25.5% | Training  1sec/iter |
| R-FCN | ResNet50 | 224\*224 | 77% |  |  |  |  | 0.12sec(K40), 0.09sec(TitanX) |
| R-FCN | ResNet101 | 224\*224 | 79.5%  83.6%(multi-sc train) |  | 82%(multi-sc train) |  | 29.2% | 0.17sec(K40), 0.12sec(TitanX) |
| PVANet |  | 1056\*640 | 83.8% |  | 82.5% |  |  | 46ms |
| FPN | Faster rcnn+ResNet50 | 224\*224 |  |  |  |  | 34.3% | 0.148sec |
| FPN | Faster rcnn+ResNet101 | 224\*224 |  |  |  |  | 35.2% | 0.172sec |
| MR-CNN | ResNeXt101-FPN | 224\*224 |  |  |  |  | 39.8% | 195ms |
| A-FAST-RCNN | VGG16 | 224\*224 | 71.4% |  | 69% |  | 25.7% |  |
| A-FAST-RCNN | ResNet101 | 224\*224 | 73.6% |  |  |  |  |  |
| CoupleNet | ResNet101 | 224\*224 | 82.7% |  | 80.4% |  | 34.4% | 122ms |
| Light-Head R-CNN | Xception | 800\*1200 |  |  |  |  | 31.5% | 95fps |
| Light-Head R-CNN | Xception | 700\*1100 |  |  |  |  | 30.7% | 102fps |
| ****one stage 的方法**** | | | | | | | | |
| **算法** | **网络** | **测试图像尺寸** | **VOC**  **2007** | **VOC**  **2010** | **VOC**  **2012** | **ILSVRC**  **2013** | **MSCOCO2015** | **速度** |
| YOLO | GoogLeNet | 448\*448 | 63.4% |  |  |  |  | 45fps |
| YOLO | GoogLeNet | 448\*448 | 52.7% |  |  |  |  | 155fps(fast) |
| YOLO | VGG16 | 448\*448 | 66.4% |  | 57.9% |  |  | 21fps |
| G-CNN | VGG16 |  | 66.8% |  | 66.4% |  |  | 3fps |
| SSD | VGG16 | 300\*300 | 77.2% |  | 75.8% |  | 25.1% | 46fps |
| SSD | VGG16 | 512\*512 | 79.8% |  | 78.5% |  | 28.8% | 19fps |
| YOLOV2 | Darknet-19 | 446\*448 | 78.6% |  | 73.4% |  | 21.6% | 40fps |
| Tiny SSD | squeezeNet | 300\*300 | 61.3% |  |  |  |  | 未测 |
| R-SSD | ResNet101 | 300\*300 | 78.5% |  | 76.4% |  |  | 35fps |
| R-SSD | ResNet101 | 512\*512 | 80.8% |  |  |  |  | 16.6fps |
| D-SSD | ResNet101 | 321\*321 | 78.6% |  | 76.3% |  | 28% | 13.6fps |
| D-SSD | ResNet101 | 513\*513 | 81.5% |  | 80% |  | 33.2% | 6.6fps |
| RON | VGG16 | 384\*384 | 81.3% |  | 80.7% |  | 27.4% | 15fps |
| DSOD |  | 300\*300 | 81.7% |  | 79.3% |  | 29.3% | 20.6fps |
| RetinaNet | ResNet101+FPN | 800\*800 |  |  |  |  | 39.1% | 5fps |
| YOLOV3 | Darknet-53 | 320\*320 |  |  |  |  | 28.2% | 45fps |
| BPN | VGG16 | 320\*320 | 80.3% |  |  |  | 29.6% | 32.4fps |
| BPN | VGG16 | 512\*512 | 81.9% |  |  |  | 33.1% | 18.9fps |