Yolov5

1. Yolov5 github 地址:

https://github.com/ultralytics/yolov5

源码讲解(优先看detect.py):

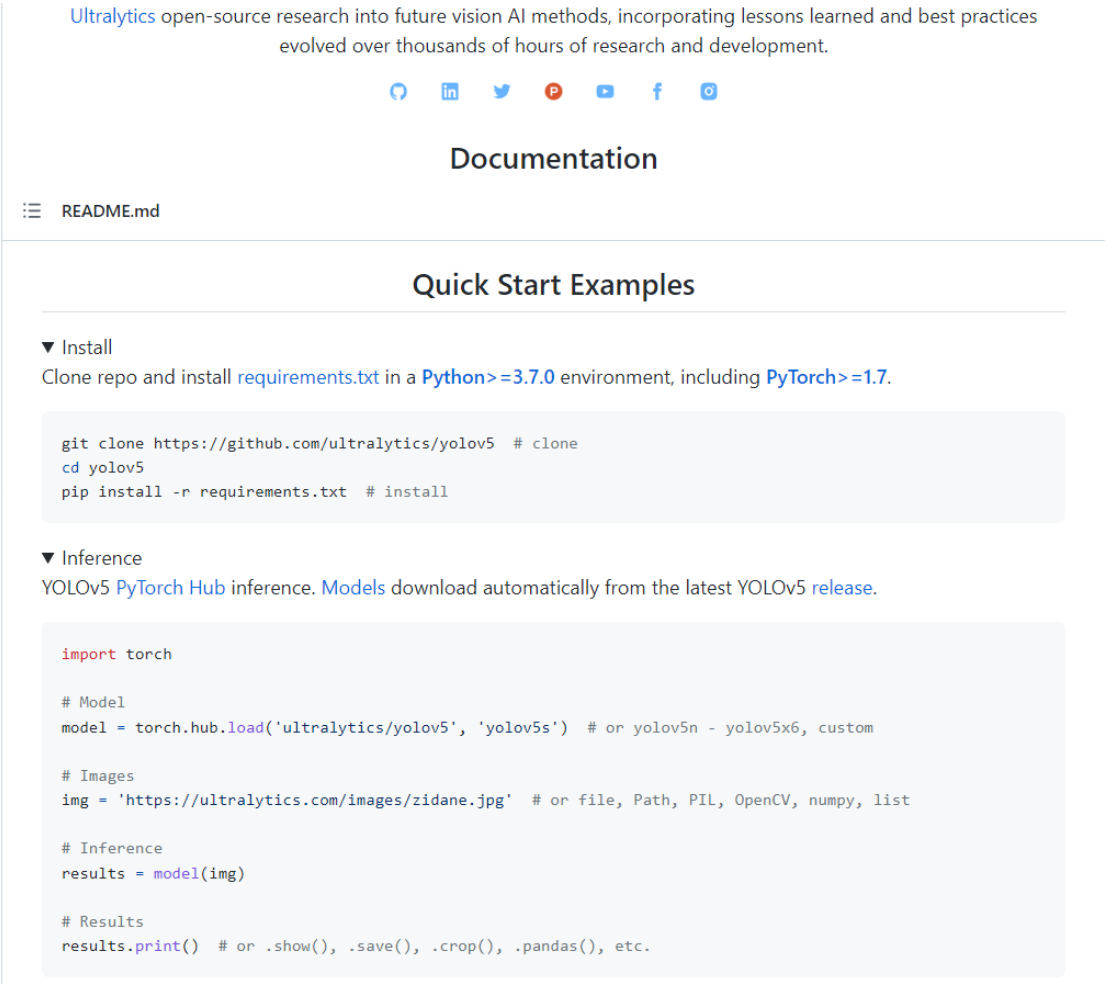
https://www.bilibili.com/video/BV1BB4y197kq?p=31&spm_id_from=333.880.my_history.page.click

2. github 使用 tips:

2.1 下载代码

https://blog.csdn.net/WILDCHAP_/article/details/107532836

2.2 查看 readme



代码往下滑就好，如果不明白就去搜索引擎搜一下，配合着看

2.3 控制下载 tag

```
git clone --branch=v3.0 https://github.com/ultralytics/yolov5.git
```

下载 yolov5 源码的时候选择 v3.0!

3. **Yolov5 应用**:

环境搭建:

```
pip install -r requirements.txt
```

运行测试

```
Python detect.py
```

如果是 Windows 系统建议装 Windows Terminal，蛮好用的。怎么装上网查查。

```
PS E:\yolov5_3.0\yolov5> python.exe .\detect.py
Namespace(weights='yolov5s.pt', source='inference/images', output='inference/output', img_size=640,
conf_thres=0.4, iou_thres=0.5, device='0', view_img=False, save_txt=False, classes=None, agnostic_nm
s=False, augment=False, update=False)
Using CUDA device0 _CudaDeviceProperties(name='NVIDIA GeForce RTX 2060', total_memory=6143MB)

Fusing layers...
Model Summary: 140 layers, 7.45958e+06 parameters, 6.61683e+06 gradients
D:\Anaconda\lib\site-packages\torch\functional.py:568: UserWarning: torch.meshgrid: in an upcoming r
elease, it will be required to pass the indexing argument. (Triggered internally at  C:\cb\pytorch_1
000000000000\work\aten\src\ATen\native\TensorShape.cpp:2228.)
  return _VF.meshgrid(tensors, **kwargs)  # type: ignore[attr-defined]
image 1/2 E:\yolov5_3.0\yolov5\inference\images\bus.jpg: 640x512 4 persons, 1 buss, Done. (0.038s)
image 2/2 E:\yolov5_3.0\yolov5\inference\images\zidane.jpg: 384x640 2 persons, 2 ties, Done. (0.034s
)
Results saved to inference\output
Done. (1.033s)
```

检测结果:

制作并训练自己的数据集

https://blog.csdn.net/weixin_48994268/article/details/115282688

ROS

Ros 课程：（Optional）

https://www.bilibili.com/video/BV1Ci4y1L7ZZ?spm_id_from=333.1007.top_right_bar_window_custom_collection.content.click

掌握程度：

1．会编写功能包

2．会发布、接收数据

3．会使用自定义 msg

4．会编写 launch 文件