



# Pytorch 版 Mask R-CNN

## 图像实例分割实战

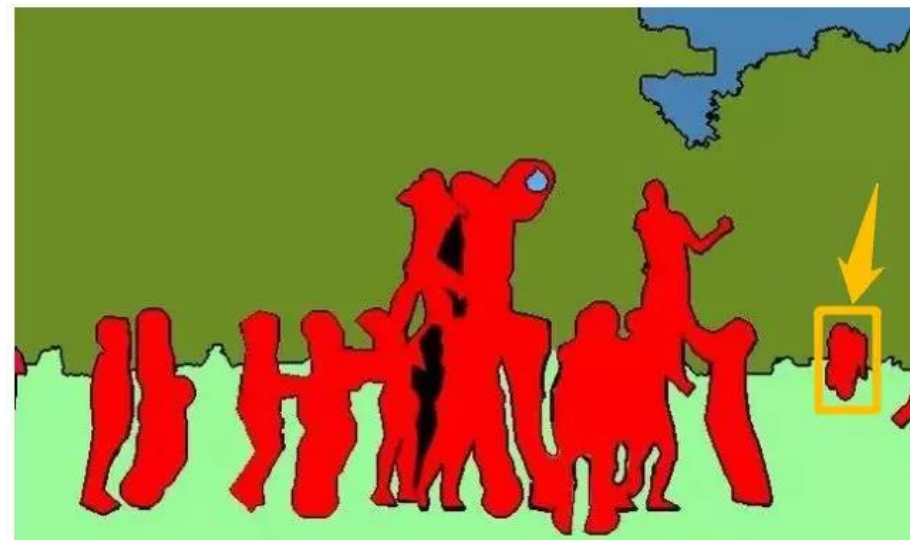
训练自己的数据集



原图



语义分割



实例分割



全景分割



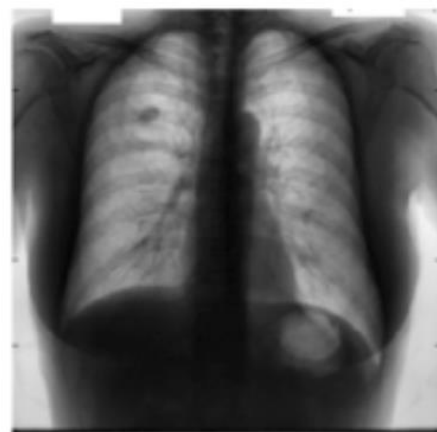
Things  
and  
stuff

# 图像分割应用

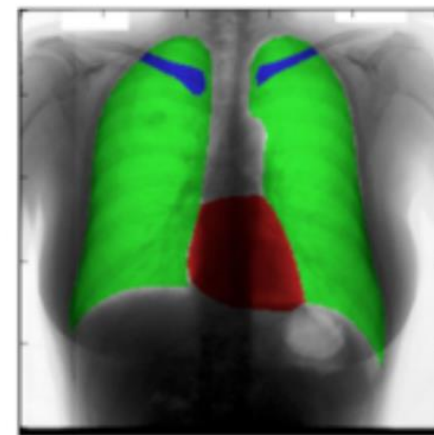
自动驾驶  
Autonomous vehicles



医学图像诊断  
Medical image diagnostics



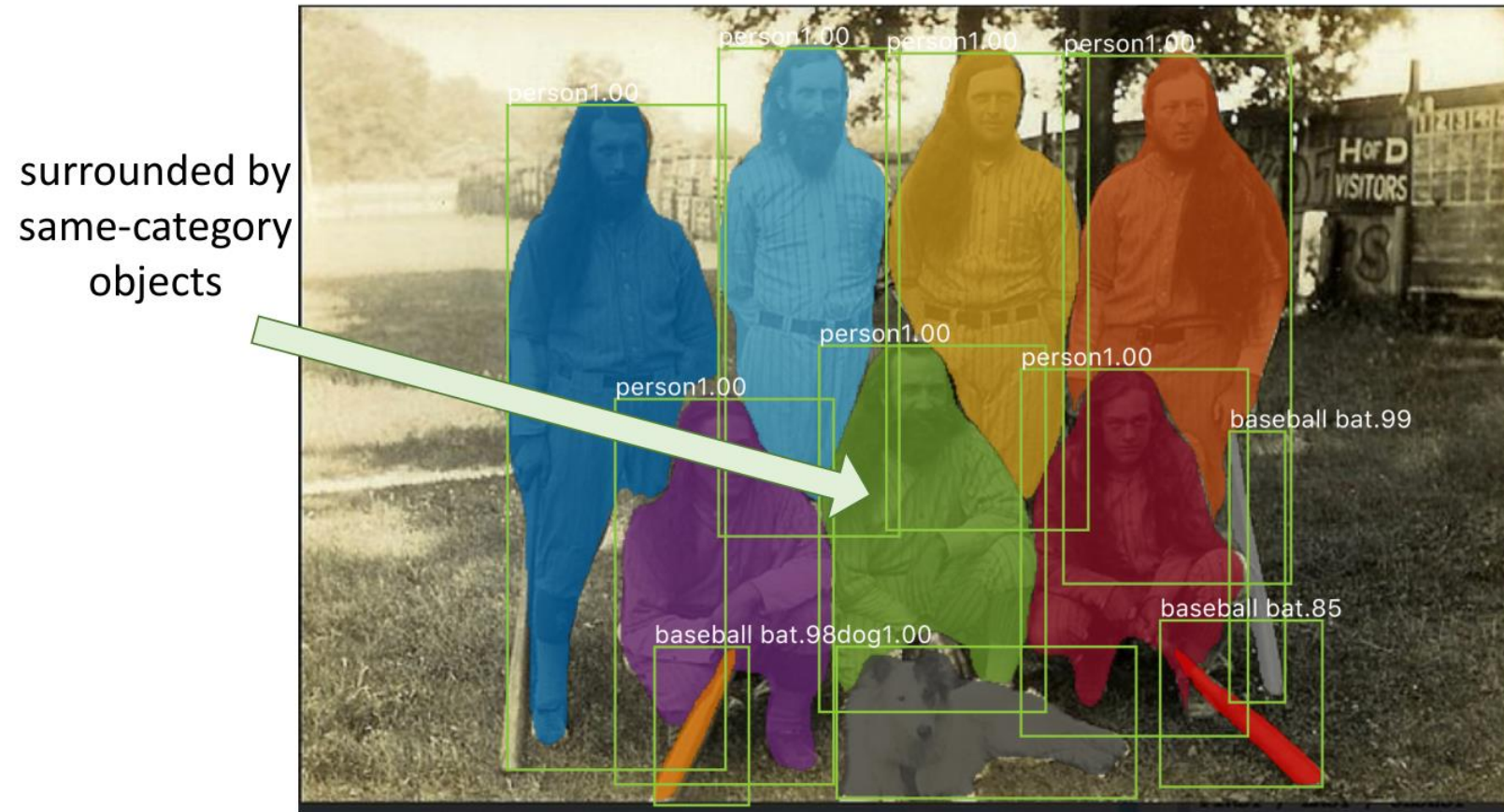
Input Image



Segmented Image



# Mask R-CNN Examples



Mask R-CNN on COCO test images, using ResNet-101-FPN and running at 5 fps, with 35.7 mask AP

# FROM RESEARCH TO PRODUCTION

An open source machine learning framework that accelerates the path from research prototyping to production deployment.

[Get Started >](#)

## KEY FEATURES & CAPABILITIES

[See all Features >](#)

### TorchScript

TorchScript provides a seamless transition between eager mode and graph mode to accelerate the path to production.

### Distributed Training

Scalable distributed training and performance optimization in research and production is enabled by the torch.distributed backend.

### Python-First

Deep integration into Python allows popular libraries and packages to be used for easily writing neural network layers in Python.

### Tools & Libraries

A rich ecosystem of tools and libraries extends PyTorch and supports development in computer vision, NLP and more.





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Fast, modular reference implementation of Instance Segmentation and Object Detection algorithms in PyTorch.

209 commits

4 branches

1 release

82 contributors

MIT

Branch: master

New pull request

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botcs Merge pull request #828 from osanwe/test\_period

Latest commit 0ce8f6f 7 days ago





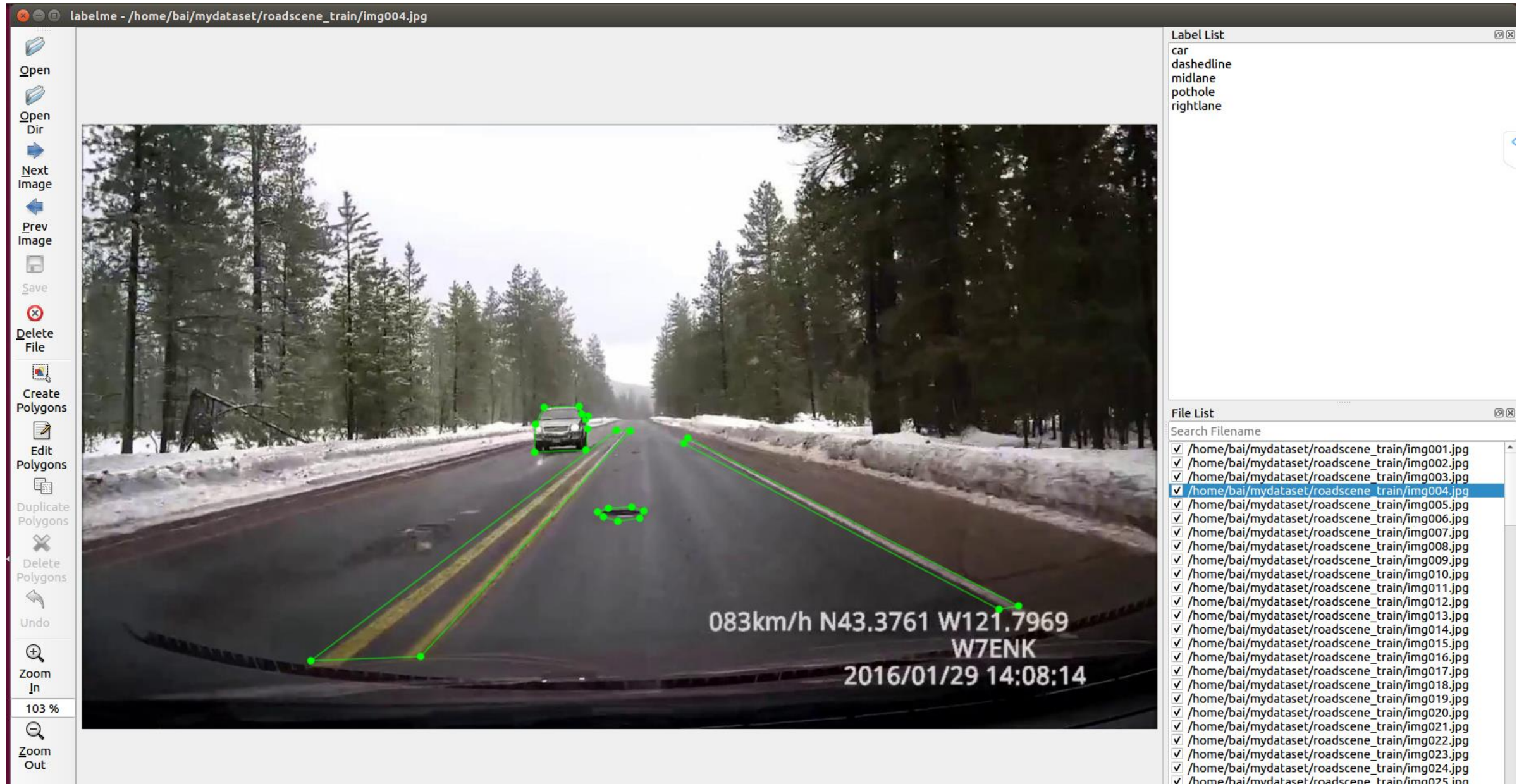




# 课程内容

- Mask R-CNN实例分割原理
- 开发环境安装(Pytorch; maskrcnn-benchmark)
- 官方demo实践
- labelme图像标注工具
- 图像标注及COCO数据格式转换
- Roadscene（多物体）实例分割项目实战
  - 使用预训练权重在自己的数据集上进行迁移学习
- 性能指标统计、demo演示、图片及视频测试

# 图像标注工具labelme



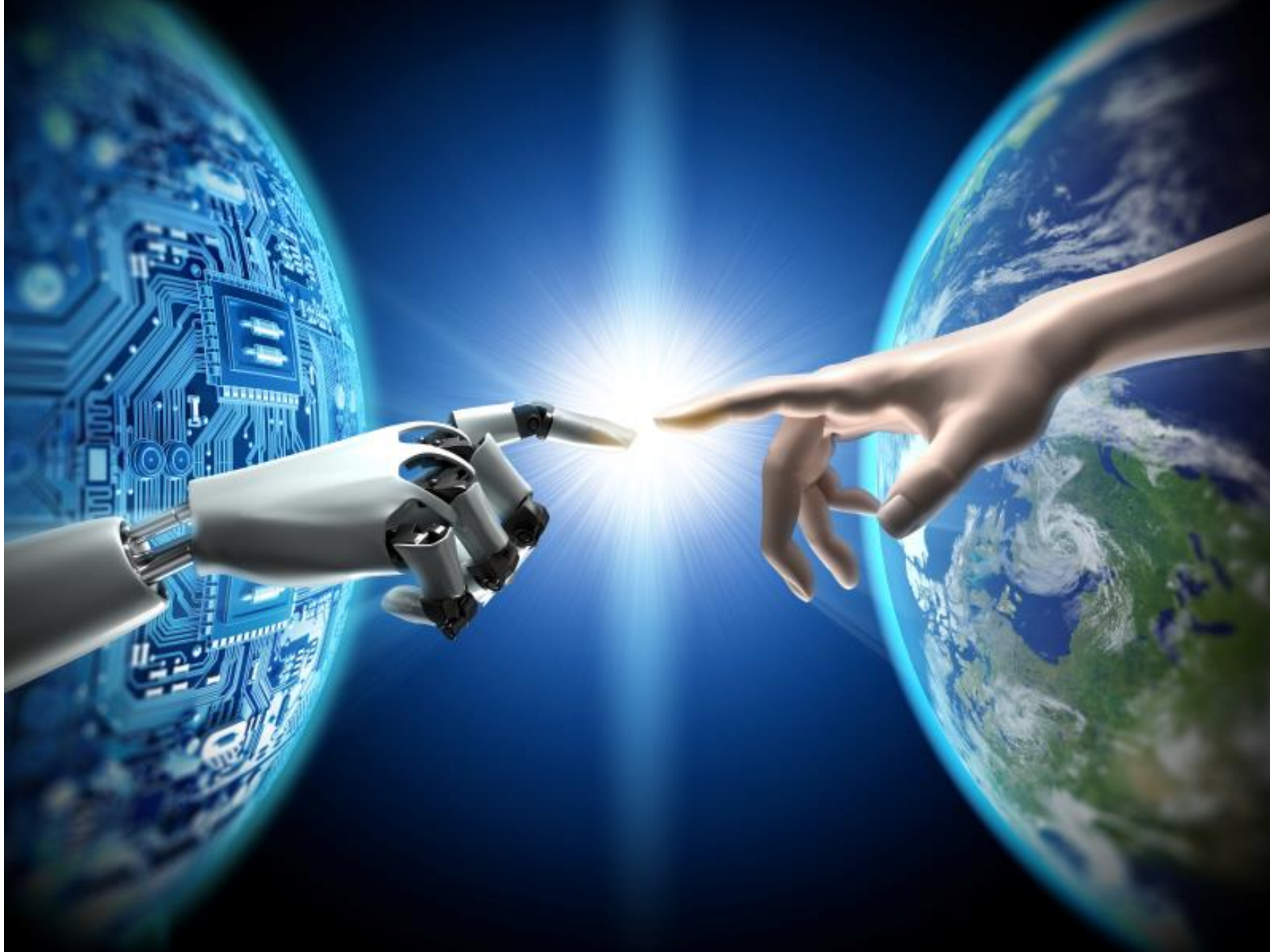
# Roadscene (多类物体) 实例分割项目实战





# Roadscene (多类物体) 实例分割项目实战





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