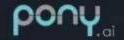
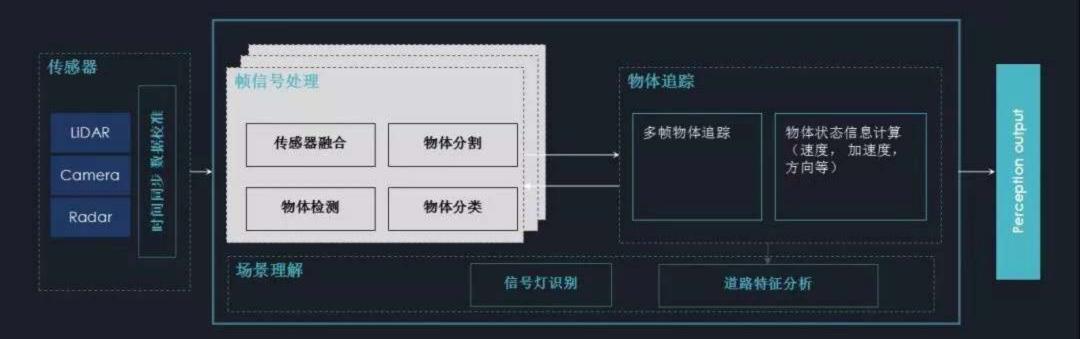
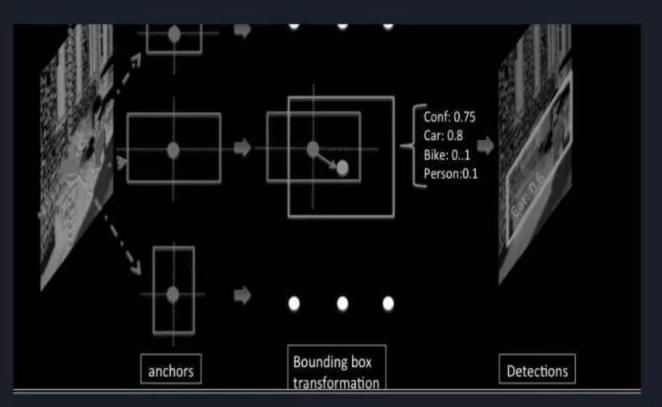
感知系统

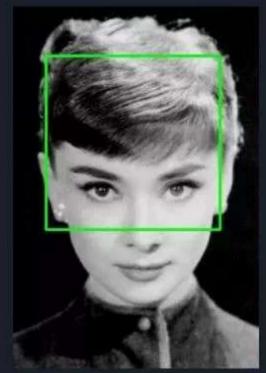






传统2D物体检测方法



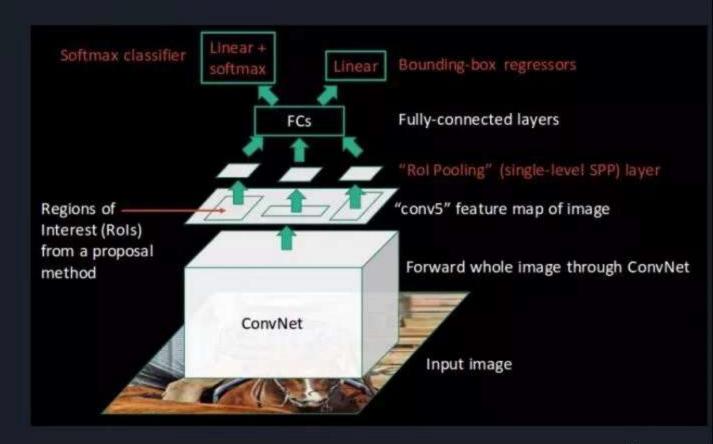






基于卷积神经网络的2D物体检测

- Anchor Based Methods:
 - RCNN(fast, faster)
 - SSD(DSSD)
 - YOLO(v1, v2, v3)
 - RetinaNet
- Anchor Free Methods
 - CornerNet
 - FSAF
 - FCOS













2D物体检测面临的主要问题--成像质量波动



3D 物体检测



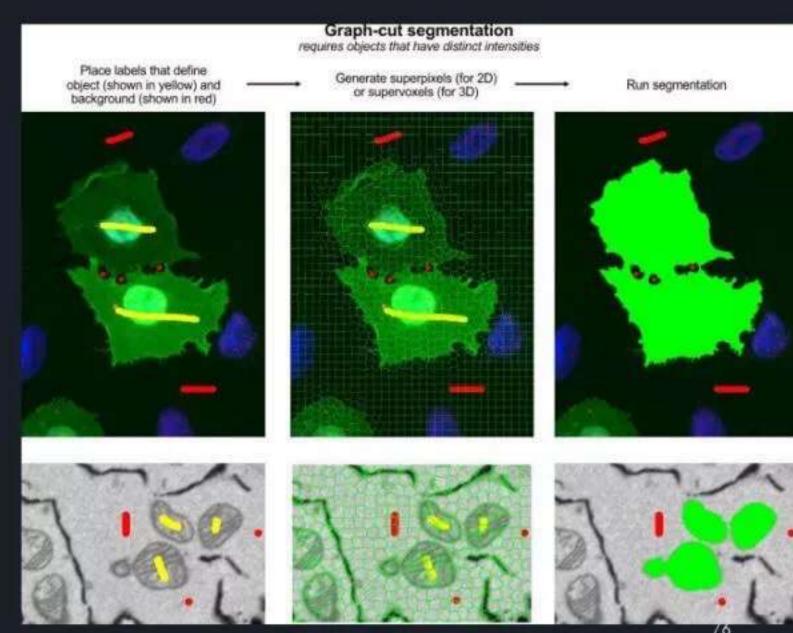




传统分割方法介绍

Flood Fill, DB scan, Graph Cut...





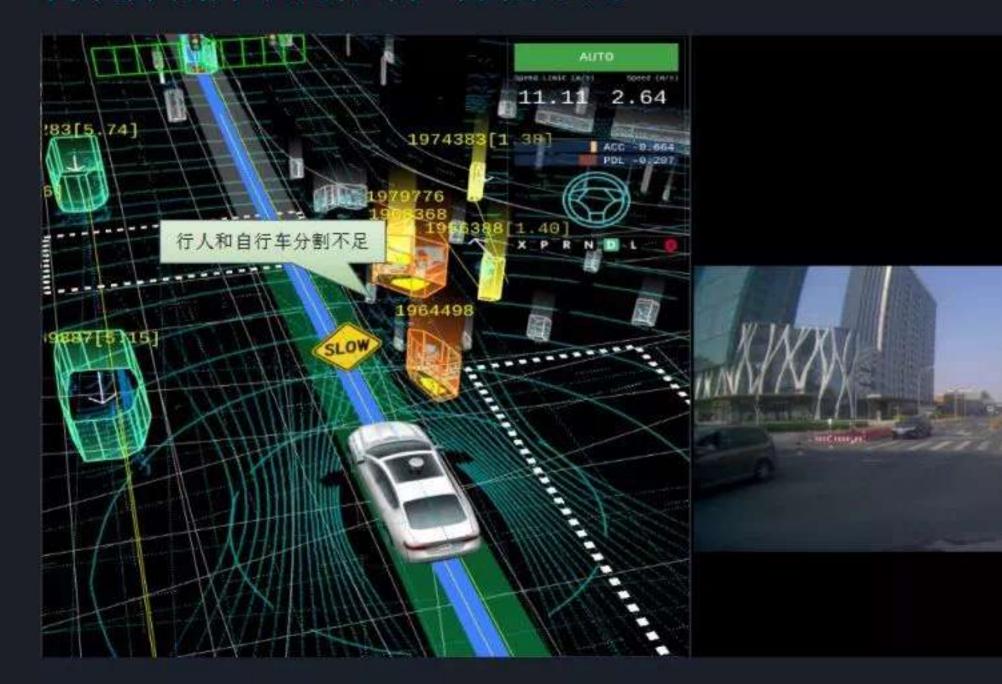


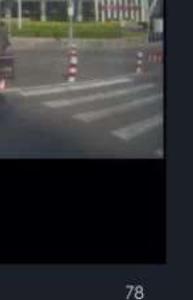
传统分割方法的限制--过度分割





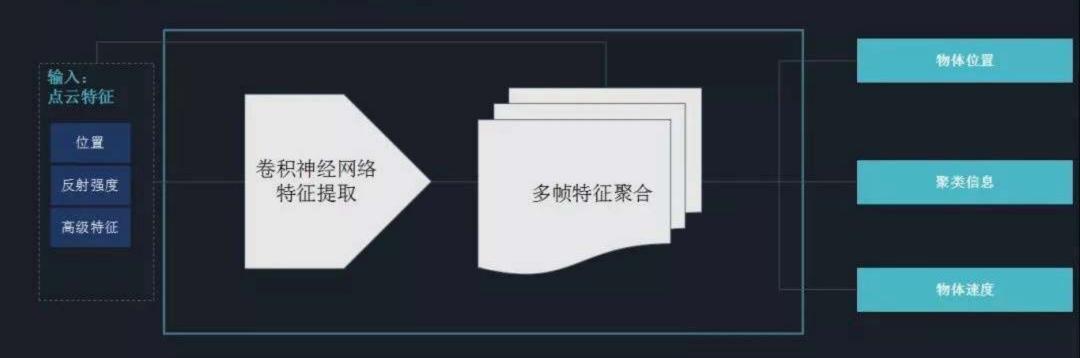
传统分割方法的限制--分割不足







基于深度学习的3D物体检测









深度学习分割方法的限制

- ➤ 结果的不完全可控
- ➤ 无法保证100%的recall
- ➤ 易导致过拟合

