计算机视觉和机器学习 Ex5 测试文档

1. 测试环境

Windows10+VS2015

2. 测试数据

自己拍摄的数据集

3. 测试结果

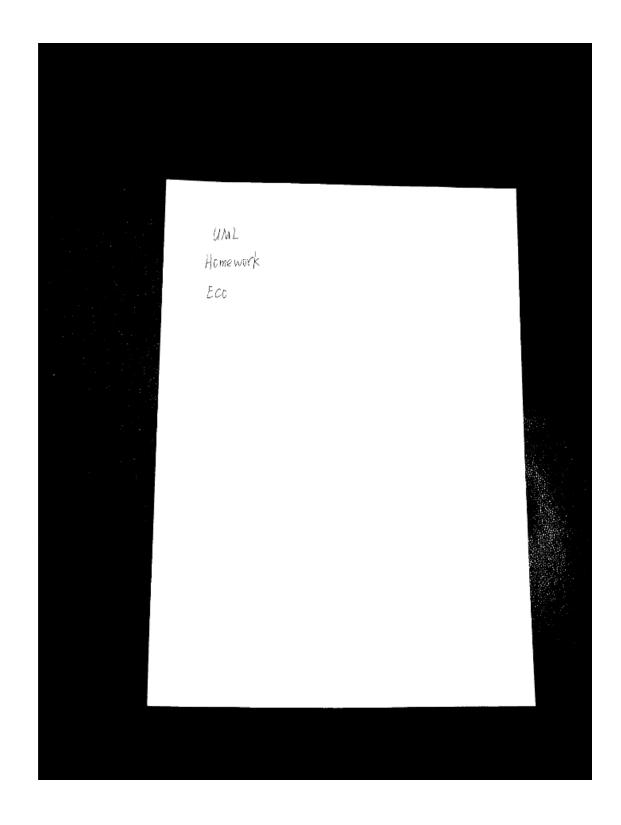
迭代法最好的十个结果:



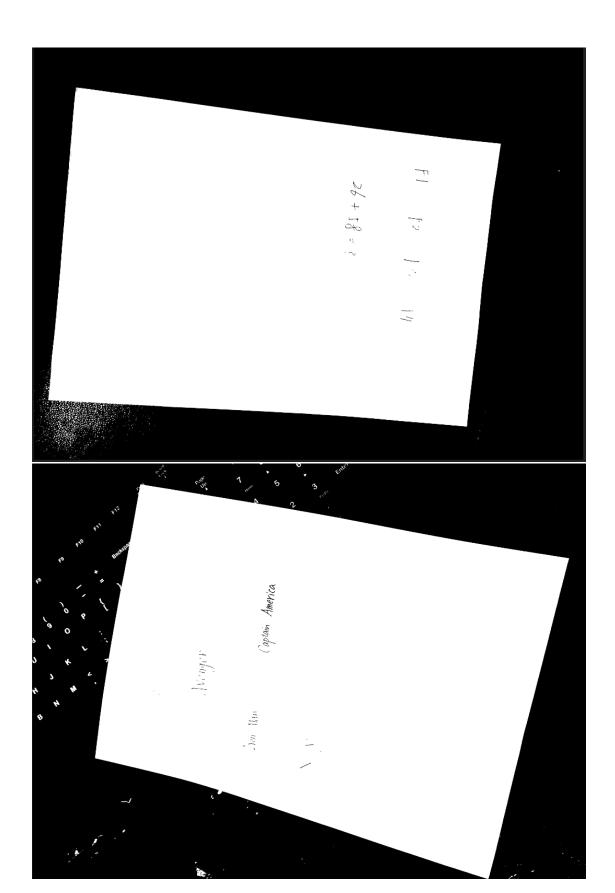
Image Segmentation

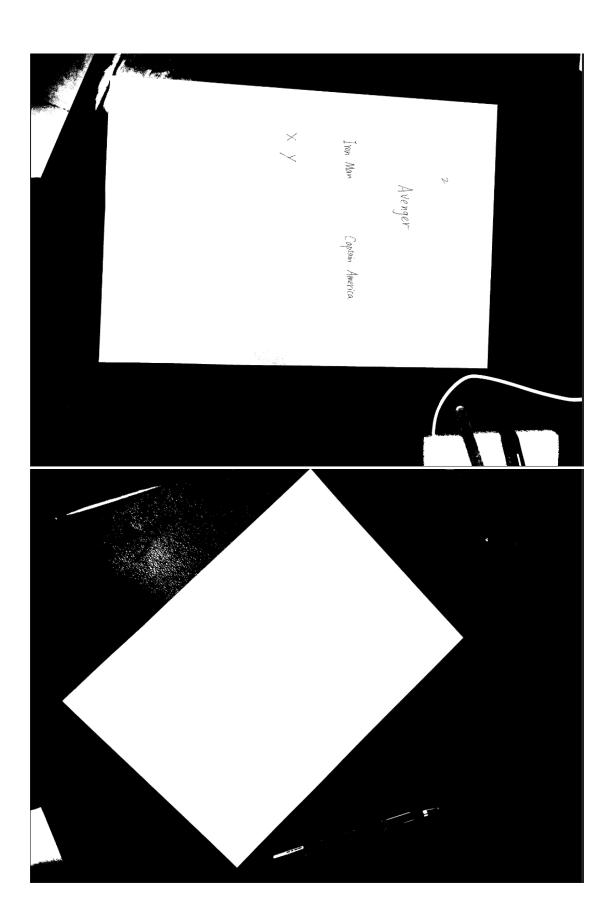
Ctt

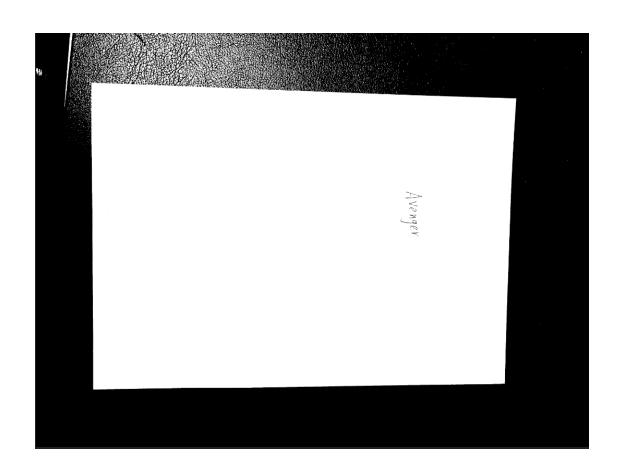
ddl: 2018.5.26

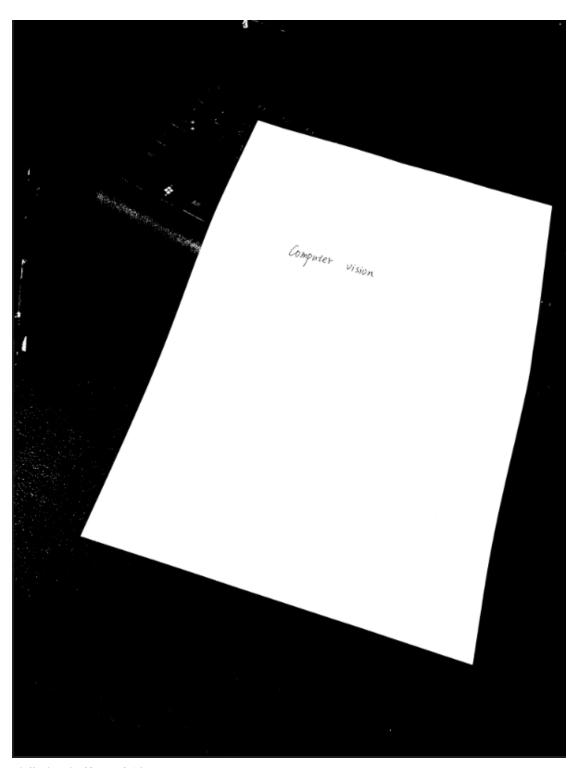




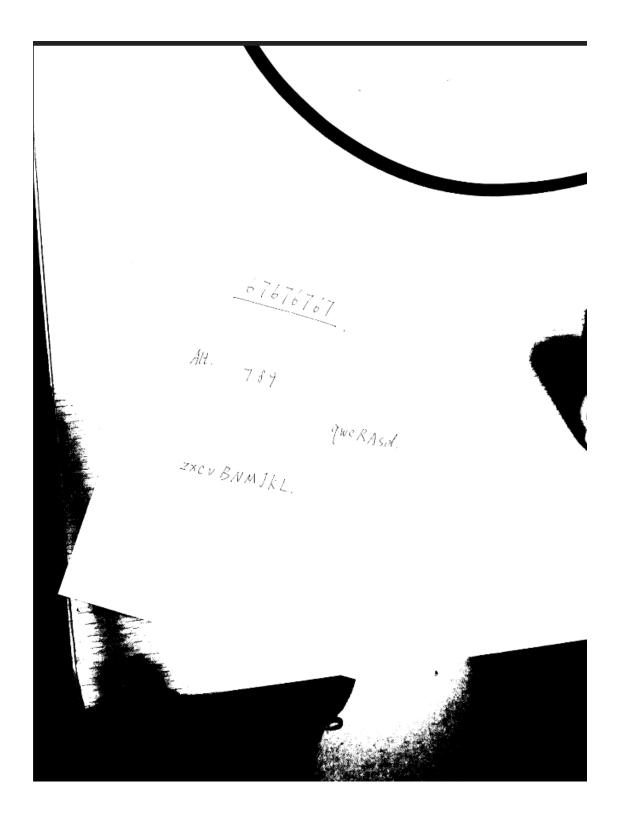


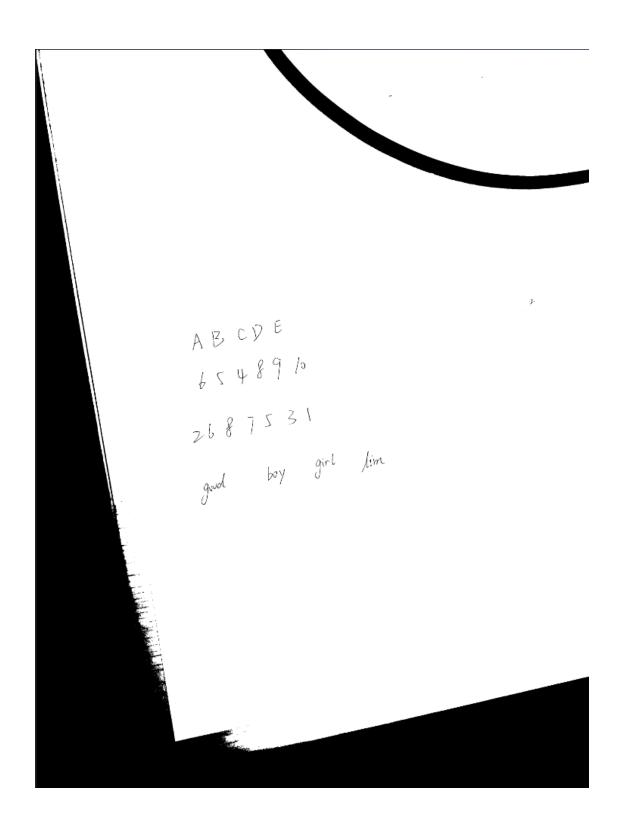


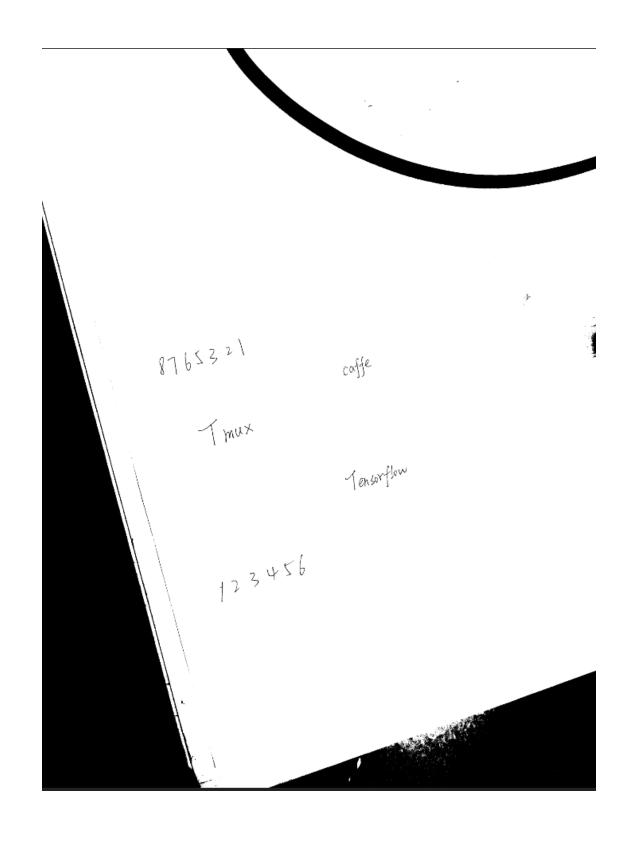




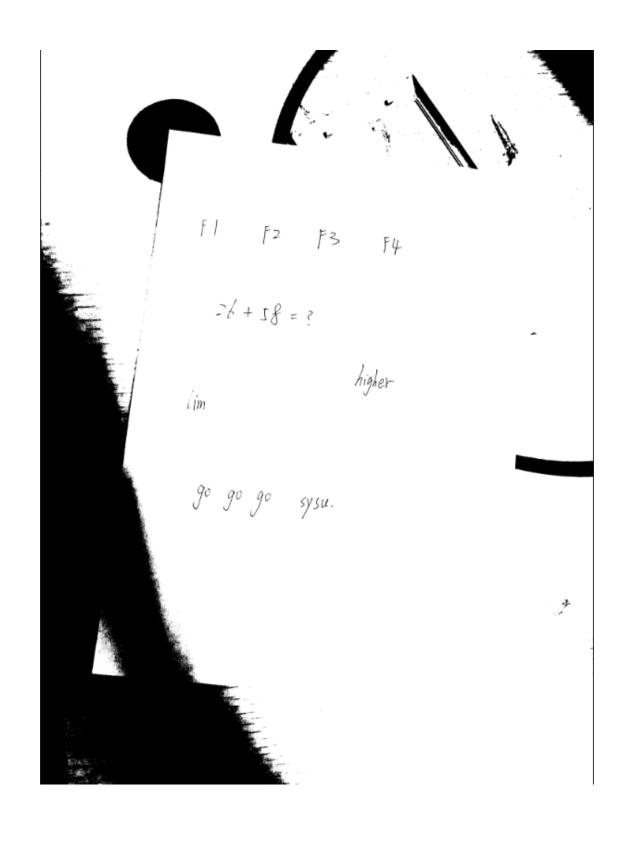
迭代法最坏的 10 个结果:

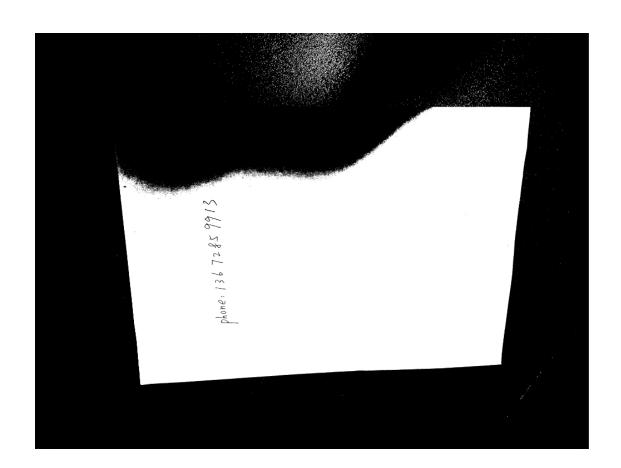












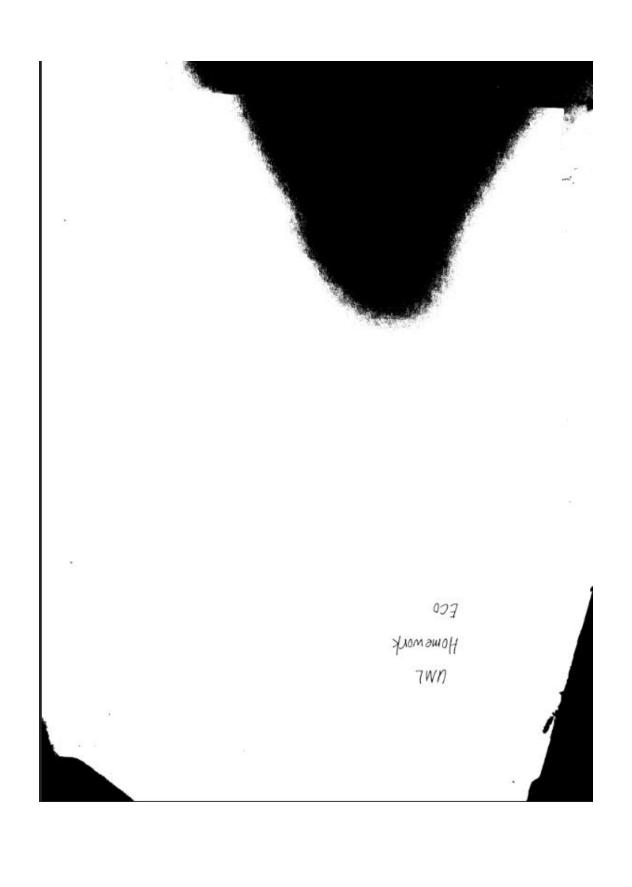


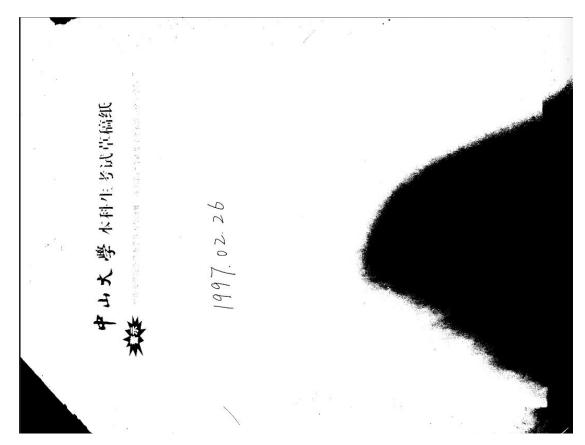


Image Segmentation

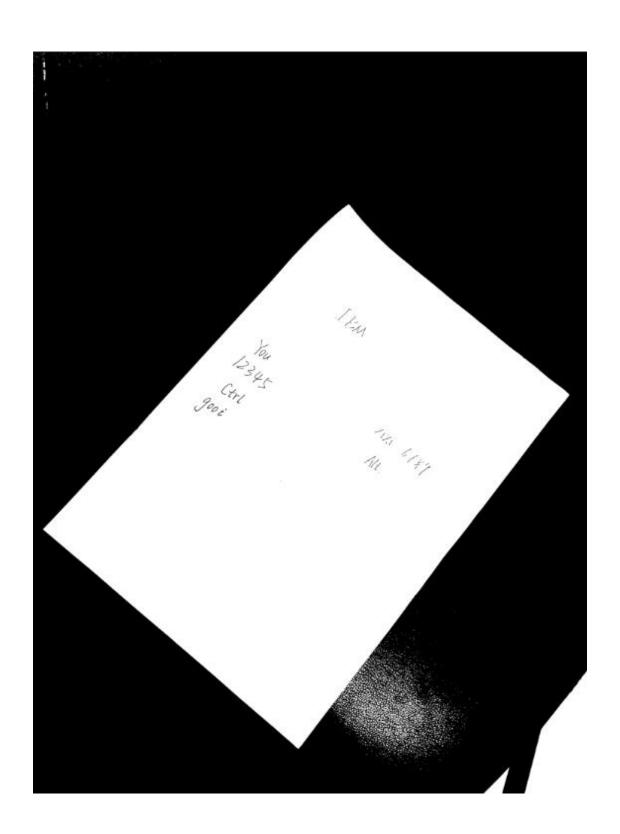
C+t

ddl: 2018.5.26

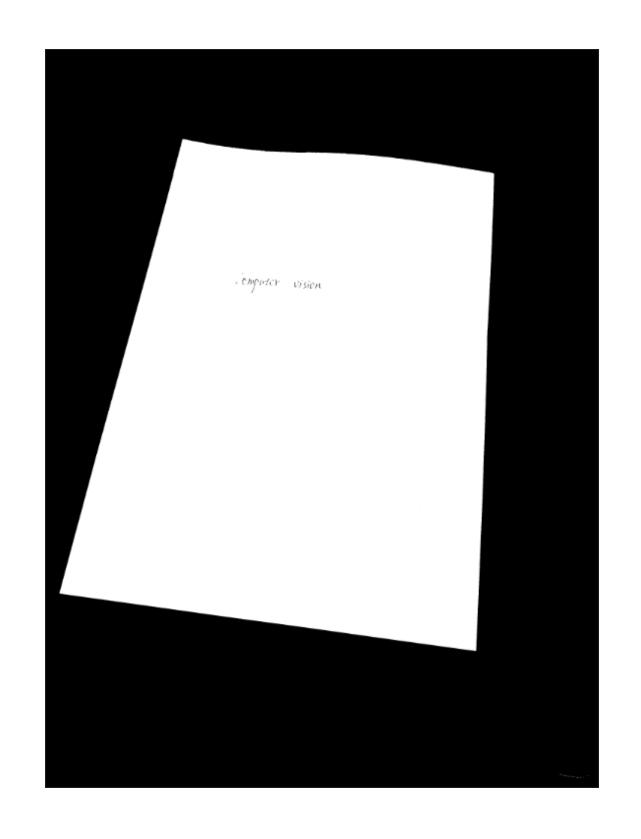


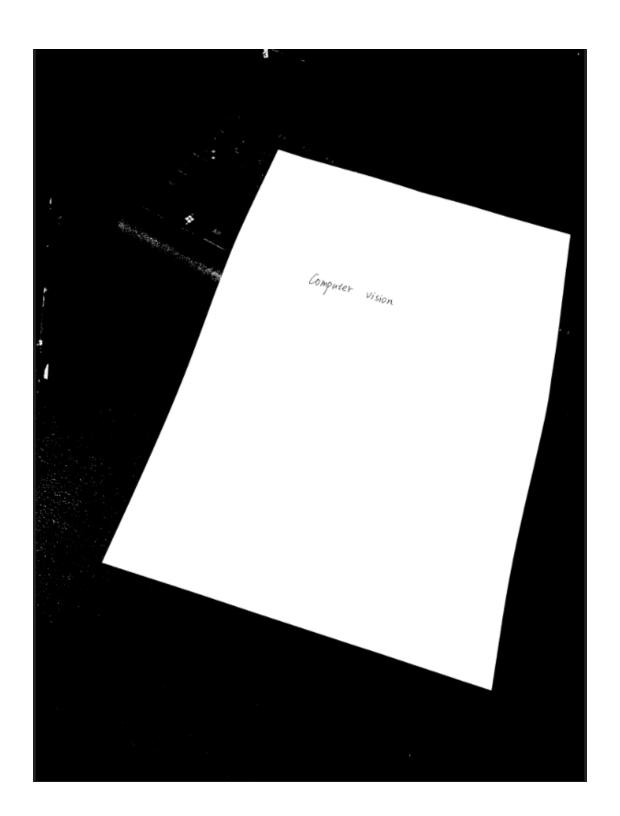


OTSU 最好的十个结果:

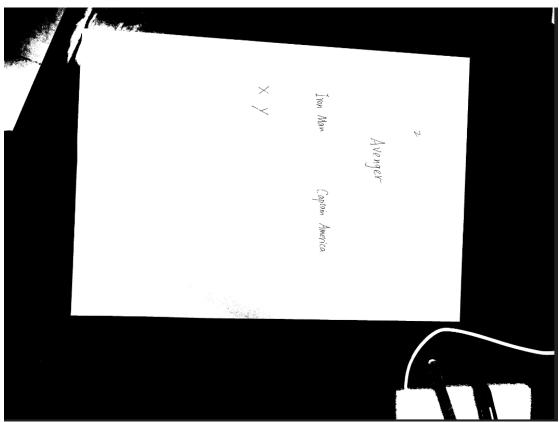




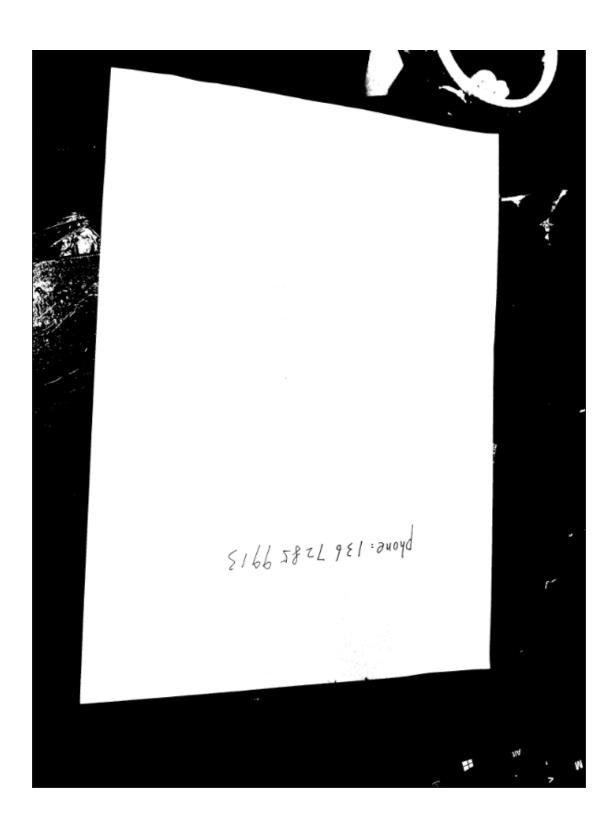


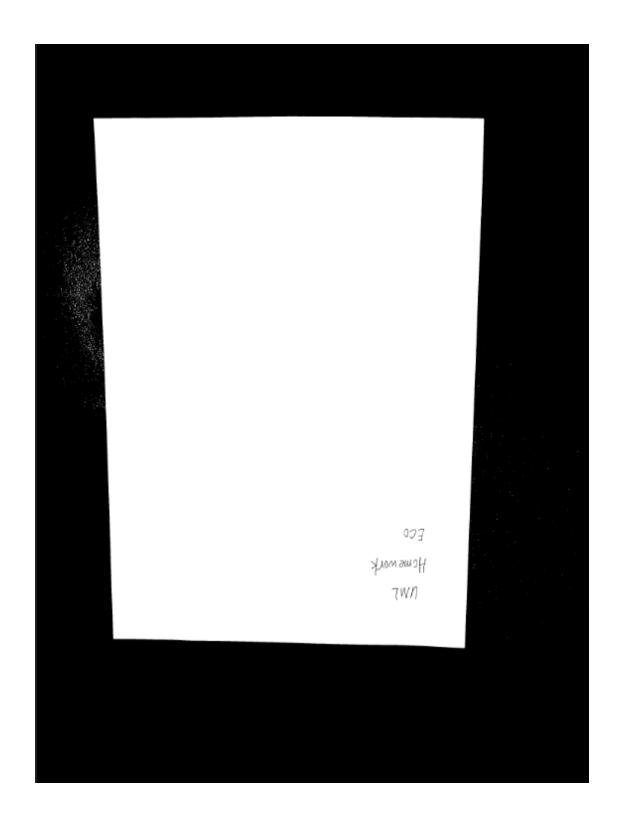


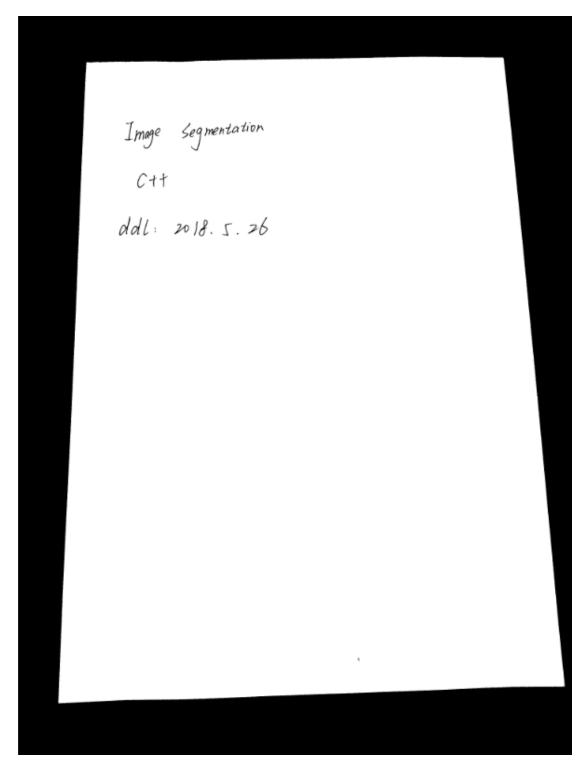




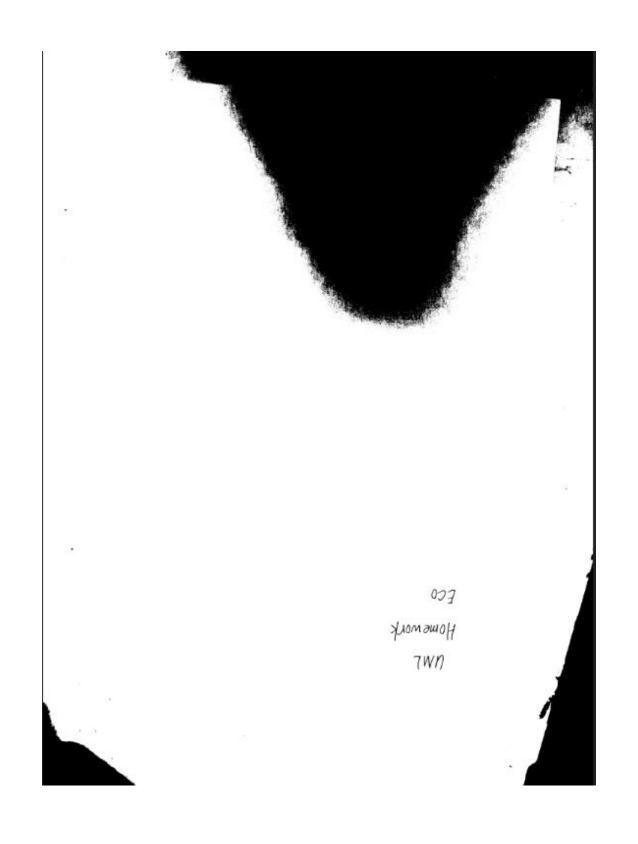


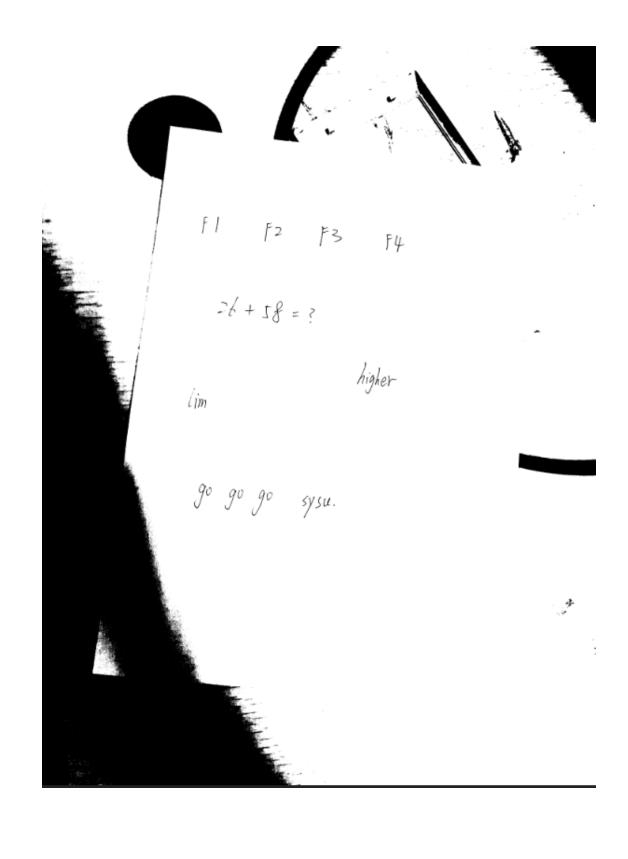






OTSU 最差的十个结果:

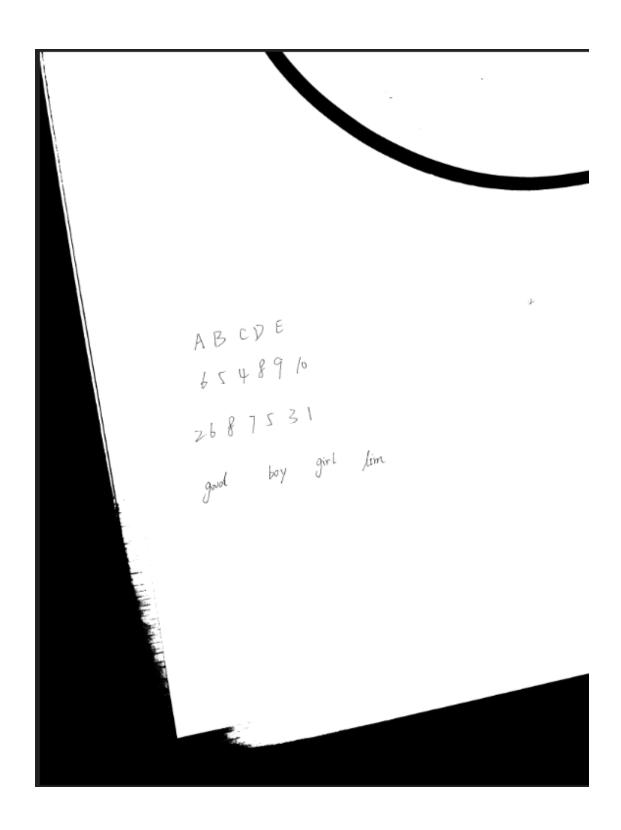


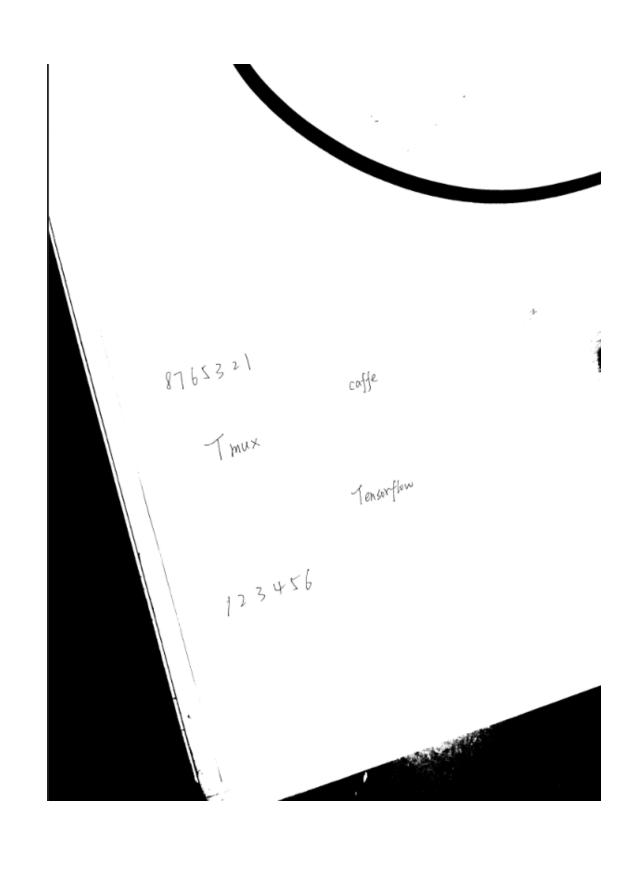


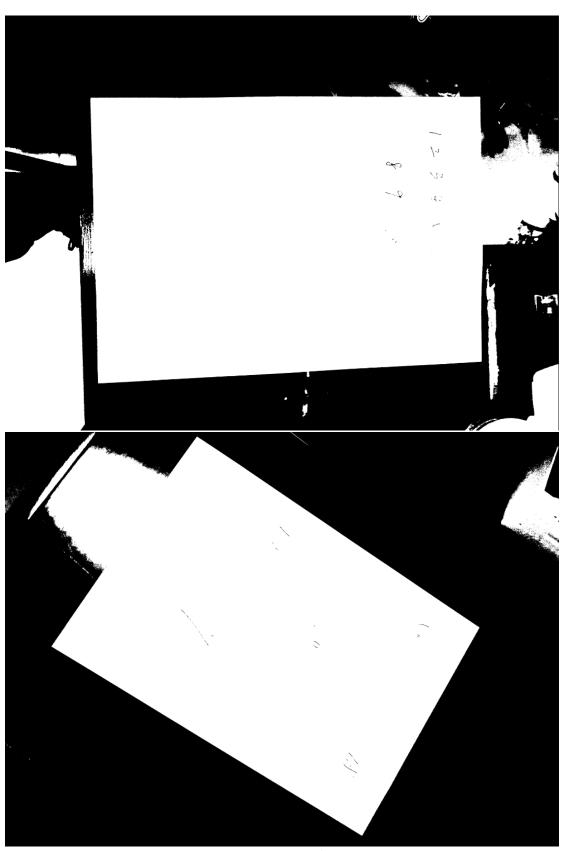












结果分析:结果出现较大的分化,好的结果可以准确分割出图片,坏的结果却是一片混乱,原因在于前景和背景的像素差别,差别越大则分割效果越好,差别越小,则分割效果越差。

迭代法和 OSTU 两个方法的区别:

OSTU 是根据前景和背景的最大类间方差来确定分割的阈值,而迭代法是一种全局的计算方法,基于逼近的一种思想,想初始化一个阈值,而后分割子图重新近似阈值从而不断逼近阈值,从效果上看,OSTU 更胜一筹。