

Weekly Report

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Period: 2018.9.3-9.9

Abstract—This week I mainly put my effort on improving deep learning methods accuracy of building extraction and writing the company project application.

I. SAR CONTEST

LAST week we tried deep learning models and post-processing methods. This week, I found that the main error may come from false positive, which reduces the precision.

- I tried to change the division of training set and validation set. Since the 10th picture contains many objects which are bright and don't belong to buildings, I add this picture to training set. The result shows about 0.5% improvement, which means this is effective.
- To get more samples, I tried the python package Augmentor. I got reduced F1 score, which was weird. This week, I checked this again and found that the reason is I didn't pair original images and ground truth images. So I corrected this and uploaded it as the second chance this week.

Fig. 1 is neural network result. Fig. 2 is the ground truth image.

II. PROJECT APPLICATION

THIS week Zhang Heng, Yu Huai and I continued to improve the company project application.

- At first, we were supposed to write a brief version of the project application. Since Yu Huai went home, Zhang Heng and I revised his part and finished the four modules.
- On the weekend, Zhang Heng and I wrote the technical routine and implementation plan. We modified original content and drew flowcharts with Microsoft Visio. Then I handed this to Mr.Lu.

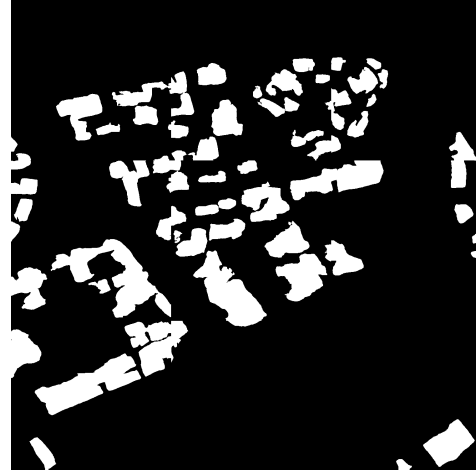


Fig. 1: Output result

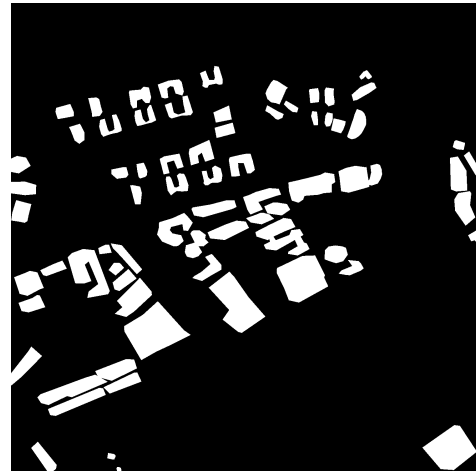


Fig. 2: Ground Truth