

Weekly Report

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1 The tasks I have finished this week

This week I still mainly focus on the implementation of Faster R-CNN. I have complete most of the project and plan to fix the details left in about 2 days, and then I can begin my training(The most part of the project have been tested).

I also improve the structure of the Faster R-CNN by add the focal loss part to the loss function. I want to test the efficient and restrictions of the focal loss function myself. I will write a report of the focal loss article[1] recently.

2 The tasks I plan to do next week

Next week I will continue the training of my net and carefully read the Mask R-CNN article [2]. I also have some important papers which haven't be read carefully, I will also read and write reports of these papers.

I have postponed the study about mathematical theory of deeplearning several weeks and plan to begin my study next week. The project of faster R-CNN has cost me much more time than I have supposed to be. It is really a challenge work for me and I have quiet learned a lot. I plan to make the project a useful tool with standard data input and output, and write a simple document of it.

References

- [1] Tsung-Yi Lin, Priya Goyal, Ross B. Girshick, Kaiming He, and Piotr Dollár. Focal loss for dense object detection. *CoRR*, abs/1708.02002, 2017.
- [2] Kaiming He, Georgia Gkioxari, Piotr Dollár, and Ross Girshick. Mask r-cnn. *arXiv preprint arXiv:1703.06870*, 2017.