

Weekly Summary

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12.04 - 12.11

This week, I mainly do some experiments. I compared the highpass filtering images and highpass filtering images after enhancement, the accuracy just increased 0.01%. Logarithmic enhancement is used in highpass filtering pictures process. Maybe the enhancement method is not suitable, so I want to try using histogram to do image enhancement. Besides, I read some papers including some CVPR2016papers, in fine grained classification part, they remind of HOG. Professor. Li also advised us using HOG to acquire features, next week, I will try this method. This week, I trained the original images of WHOI on VGG16, but it runs too slow. 200 thousands iterations needs about 4 days. 3-channel VGG16 costs more time. I haven't run 3-channel VGG16 till now, I don't know whether I should continue to trained WHOI on VGG16 considering large database and large network. More details of my experiments can be seen in Jinna_experiment_report.pdf.

Important decisions about ICIP:

Research Dataset: WHOI-Plankton;

Research Evaluating Indicator: Accuracy;

Research Benchmark: AlexNet (mainly), other typical CNNs such as VGG16 and ResNet, some new types CNNs such as Inception V4.

Research Method: I mainly focus on the image pre-processing to acquire different more useful features. Besides, I also want to optimize the network structure.