

HW6 grading criteria and regrading

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Dear EE569 students,

HW6 scores has been posted. Grading criteria is attached below. Since it is reaching the end of the semester, we won't hold any regrading session for this time. If you have any questions about HW6 grades, please feel free to contact Yao (yaozhu@usc.edu).

Graders

Homework 6 grading criteria:

1. introduction 15%

flowchart: 10pts, 5 for conv, 5 for fc

similarity and differences: 5pts, 1 for Saab unsupervised, 1 for with/without backpropagation

2. Image reconstruction 35%

a. compute Saab coefficients (10 pts.)

3 pts: have to use required network architecture setting, which means final coefficients dimension: $2 \times 2 \times N$. (No maxpooling);

2 pts: mention the differences between training process and testing process, which means you should know the parameters of Saab transform are learn on a training set (i.e. 1000 images), and apply to a single image.

b. evaluation (25 pts.)

10 pts.: images and PSNR scores.

5 pts: relation between kernel numbers and PSNR score.

5 pts: the effect of kernel numbers in each stage separately, i.e. if the first stage kernel number is too small, then you can't reconstruct the image very well by increasing kernel number in the second stage.

3. Ensemble 50%

a. Individual FF-CNN result(10 pts.)

b. Ensemble (25 pts)

5 pts: performance improvements by using ensemble;

10 pts: for each FF-CNN design;

5 pts: reasonable strategies and explanation. should mention the diversity of design.

c. Error analysis (15 pts)

2 pts: What percentages of errors are the same?

4 pts: What percentages of errors are the different?

2 pts: plot error images