

EECS 531 - Computer Vision

Assignment 1("A1")

Exercises

Exercise 1: Make a notebook that explains and implements a blurring filter. Refer to slide 3 of lecture 3b. For this exercise, you should implement the filter “by hand”, and not call a library function.

Exercise 2: Make a notebook for an edge detector. You may use a library function.

Exercise 3: Make a notebook for feature detector, e.g. the letter ‘h’ as shown in the lecture.

Exercise 4: Make a notebook that illustrates different ROC curves for the feature detection example in Ex. 3. You will need to devise a way to control the signal to noise ratio.

Requirements

You should use git to manage your code and notebook and make commits regularly to show your progress. Your notebook should include all necessary text, math, code, results for explaining your work to others.

Important Dates

Feb 12 - First group discussions. You are encouraged to seek and provide helps, exchange knowledge, explore novel ideas in this discussion session.

Feb 19 - Second group discussions. You should clearly present your work to others and grade others’ work in this discussion session.

Feb 21 - Final due.

You should make a submission of your code and notebook to canvas before each discussion and the final due. After the discussion session, you should submit your feedback to others' work on canvas in their submission page.