

# CSE 152 - Introduction to Computer Vision

## Assignment 0

Due Thursday, April 8

**Question 1 (1 pts)** Login to the class discussion board at <http://discus.ucsd.edu>.

**Question 2 (4 pts)** Work through the Matlab tutorial code snippets (<http://www.cse.ucsd.edu/~sjb/classes/matlab/matlab.intro.html>).

**Question 3 (5 pts)** Use the tutorial to help you to do the following:

- Read the `face.bmp` image (<http://www.cse.ucsd.edu/classes/sp04/cse152/hw0/face.bmp>)
- Convert the image to gray scale.
- Reverse the color of the gray image in step 2, i.e for each pixel, replace the color value by subtracting it from 255.
- Resize image by 50% with `bicubic` interpolation method.
- Write the final image into a bitmap file `face_small.bmp`.

You may need to use `rgb2gray`, `imwrite` functions on this problem. Type `help <function_name>` to get help on using the function. You may also need to convert variables to `double` type (use `double(var)`) in order to apply arithmetic operations. Document your code and save them into `hw0.m` script file. Make sure the script work well.

### What to hand in:

- Post one message containing just your full name to the **Assignment 0 thread** in the discussion board. Please do not send more than one message.
- Make a printout of the tutorial in question 2 and check off each section number once you have completed it. (You do not need to turn in any output from your commands; just print out the four pages of the tutorial.) You can also make comments next to any portion that caused you trouble, or to make suggestions that would be useful for future revisions of the tutorial.
- Printout of the script file.
- Printout of the final image (`face_small.bmp`).