Intro to Computer Vision - Assignment #3
Saliency Network

Due: Friday, May 23

For this programming assignment you will implement the saliency network as described in class and the notes available on the webpage.

Your program should take as input a grayscale image and a value K. The output of your program should be a series of images representing the k-th saliency map for k from 1 to K.

A significant part of the assignment involves designing a local saliency measure $\sigma(s)$ and a local curvature measure $\psi(s,t)$ that is compatible with it. You will need experiment with different functions to find something that works well in practice.

All of the segments in your saliency network should have approximatelly the same length, and they should be able represent at least 16 different orientations. For example, you can connect each pixel p to the 16 pixels that are approximatelly distance 2 from p as illustrated in Figure 2 of the notes.

You should turn in your source code and the result of running your program on the test images that are on the class webpage. You should illustrate the evolution of the k-th saliency map as k increases from 1 to 10. You should also turn in a small write-up explaining what each part of your code does.