



InClass Exercise 8

Due by 4/3/2018, Tuesday Midnight through Canvas

Requirements: Please ensure that all source code is tested properly and follows general code readability guidelines (i.e., includes proper variable names, adequate comments as well as brief description of your logic or pseudocode or algorithm used). Submit all files including any images.

Part 1: Image Segmentation using K-means

1. Write a MATLAB function to perform image segmentation based on color and position, using K-means algorithm. Please submit image_segmentation.m file which contains the following:
 - function [output_image] = image_filtering(input_image, k)
where:
 - input_image: This argument should accept a color image of any dimensions.
 - k: Number of clusters
2. Now take sample images (provided) and perform image segmentation using different values of k and display the results. Note: you may want to show different clusters using different colors.

**Helpful link - <http://ai.stanford.edu/~kosecka/cs223b-segmentation.ppt>