

CS423 Data Mining: Assignment 4

CMU, Due date: 29 November 2016

Instruction

In this assignment, you will implement an image segmentation program using k-means clustering algorithm. The program will take as inputs an image filename and the number of clusters. You will need to implement the k-means algorithm to complete the task. The program should output the original image and the segmented image on the screen. This can be done using `imshow()` function. Other useful functions include `imread()`, `imresize()` and `subplot()`.

There is a useful third-party module for manipulating image data named SIVP. The module can be added to Scilab using `atomsInstall('SIVP')` command.

Examples

The following is an example of the program.

```
>> imseg('fluffy.jpg',3)
```

Original image



Segmented image



Figure 1:

```
>> imseg('desert.jpg',5)
```

Original image



Segmented image

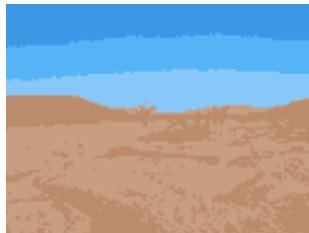


Figure 2:

Submission

Submit the codes to jakramate.b@cmu.ac.th, prefixing your email subject with [423HW4].