

## CSE 252A – Computer Vision – Homework 0

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Revision 0

### Instructions:

- Submit your homework electronically by email to `nkinkade@eng.ucsd.edu` AND `akdave@eng.ucsd.edu` with the subject line *CSE 252A Homework 0*. The email should have one file attached. Name this file: `CSE_252A_hw0_lastname_studentid.zip`. The contents of the file should be:
  1. A pdf file with your writeup. This should have all code attached in the appendix. Name this file: `CSE_252A_hw0_lastname.pdf`.
  2. All of your source code in a folder called `code`.

The code is thus attached *both* as text in the writeup appendix and as source-files in the compressed archive.

- No physical hand-in for this assignment.
- Coding is to be done only in MATLAB.
- In general, MATLAB code does not have to be efficient. Focus on clarity, correctness and function here, and we can worry about speed in another course.

### 1 Piazza [1pt]

Enroll in CSE 252A on Piazza. You'll be able to ask the professor, TAs, and your classmates questions on Piazza. You can register using a `ucsd.edu` email account at <http://piazza.com/ucsd/fall2015/cse252a>. Class announcements will be made using Piazza, so be sure to check your email or Piazza frequently. The rest of this problem is contained in a Piazza post. Once you have logged in, please follow the instructions included in the post 'CSE 252A Piazza Problem!' to complete this problem.

### 2 Image Manipulation [5pts]

On the course website, you will find 4 sets of images (`border1.png` & `center1.png`, `border2.png` & `center2.png`, `border3.jpg` & `center3.jpg`, and `border4.jpg` & `center4.jpg`). The border images have had their center removed, and centers represent the respective removed portions. Write a matlab function that loads two images (border and center) and reconstructs the original image from them, then displays them. Do not use any for or while loops, or any hard coded sizes or borders. You should use the same function to reconstruct all images. Add all the output images and all of your code to the report described in the next section (4 images total).

### 3 Creating a Report [5pts]

Create a report in  $\text{\LaTeX}$ . The report should have answers to problem 1 and 2 in it. It should also have an appendix with all your code as text. Please use the `\listing` package to list code. If you need help with  $\text{\LaTeX}$ , see the homework template. This template will provide tips on including images in  $\text{\LaTeX}$  as well as displaying code.