CS 223b Homework 4 (Due Wednesday, February 20th)

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1. **Image Mosaics.** (30) This excercise leads you through few initial steps of creating image mosaics. Dowload the three image from the web page. Hand in the code and the final result (using Matlab or OpenCV are both fine). In Matlab the final stitching can be implemented using `interp2` function, so it is recommended. To make the code more efficient you can reduce the size of the images and convert the to gray level.

   (a) Detect the SIFT features in each image.

   (b) Establish correspondences between views 1-2 and 2-3 using your prefered matching technique. In case you will not be successfull you can select the corresponding points by hand using function *click_image.m*

   (c) Compute the homographies relating images 1-2 and 2-3.

   (d) Stich the images based on computed homographies with the middle image to obtain one large image.

2. (Optional) Use the cylindrical projection to map all views to a cylinder.