

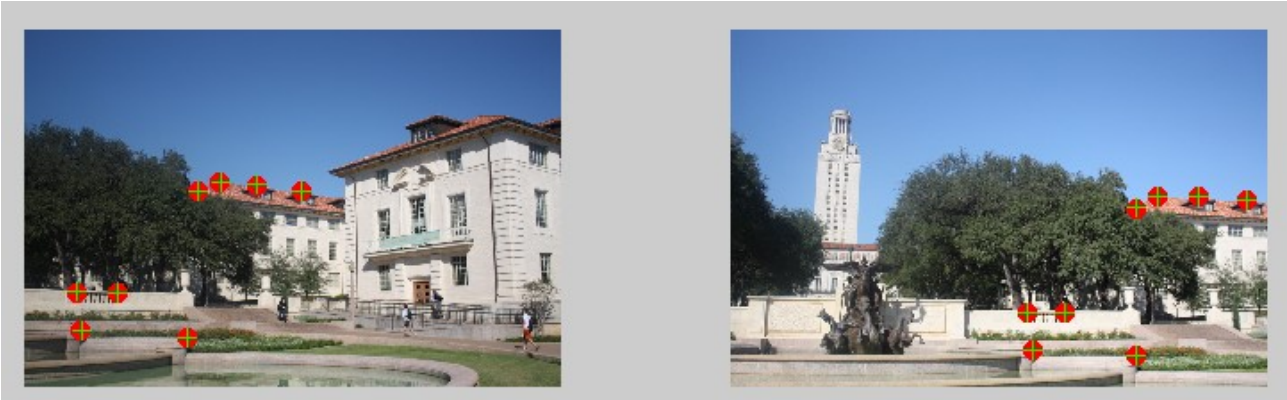
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cs id: tomas

CS 376 pset3

Part 1:

1. Mosaic created from provided images



Displaying selected points to verify correctness of homography matrix. Clicked points are displayed as red circles, points mapped from the other view are displayed as green crosses.

Warping right image into left image plane:

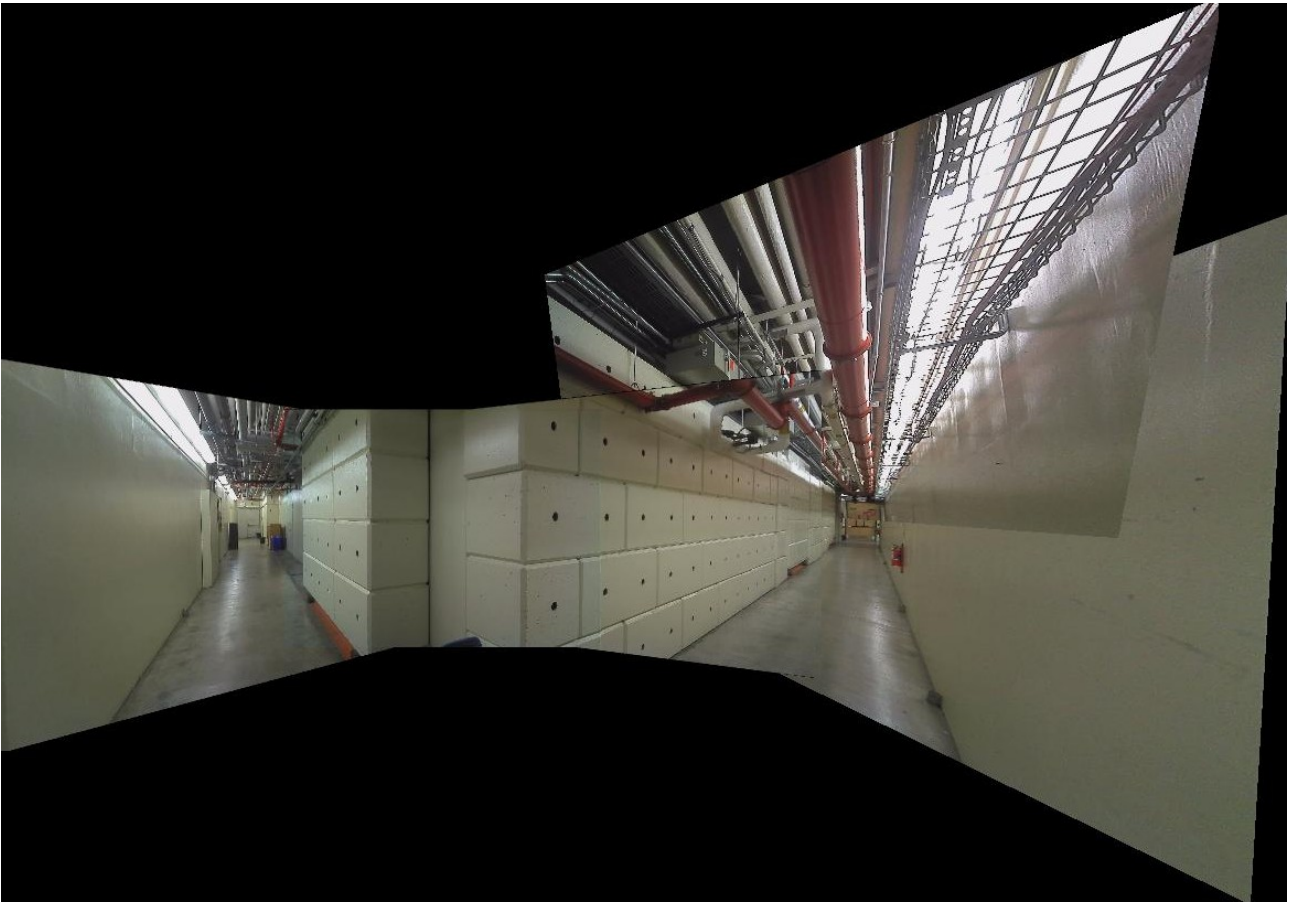


Warping left image into right image plane:



warpMain uses computeH to obtain the homography matrix given the set of corresponding points between the two images, then calls getdims to obtain the dimensions of the final output mosaic in im2's image plane.. We then warp im1 using the homography matrix, sampling over the ranges obtained by getdims. We then warp im2 using the identity matrix, sampling over the ranges obtained by getdims. This yields two images with identical dimensions that can easily be overlaid to obtain the final output mosaic.

2. Additional mosaic: In the bowels of ENS...



3. Warping image into a known planar surface:



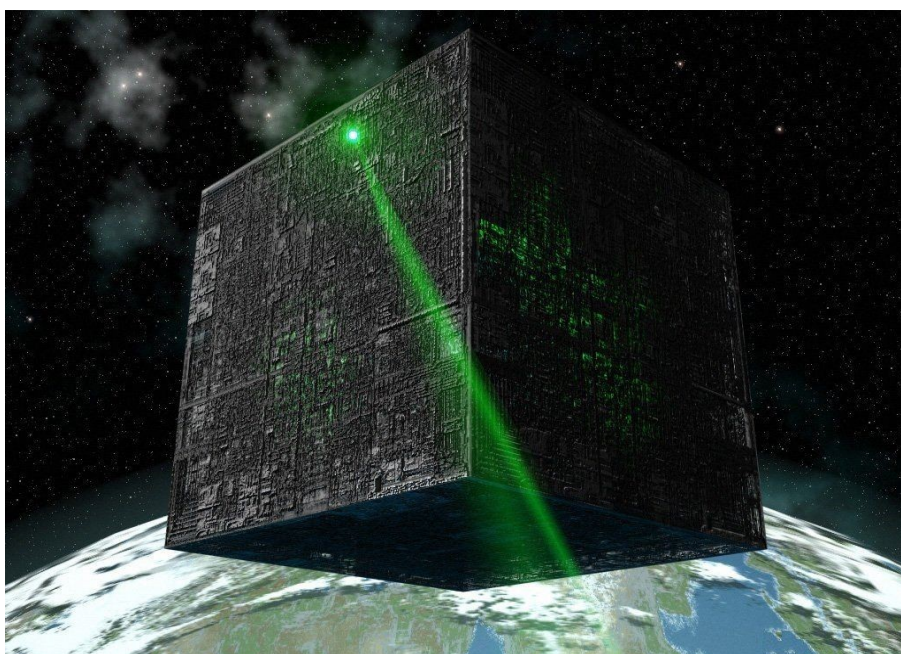


(image of tokyo from wallpaperbase.com)
(image of the matrix from wikimedia.org)
(image of girl courtesy of Tomas McCandless)

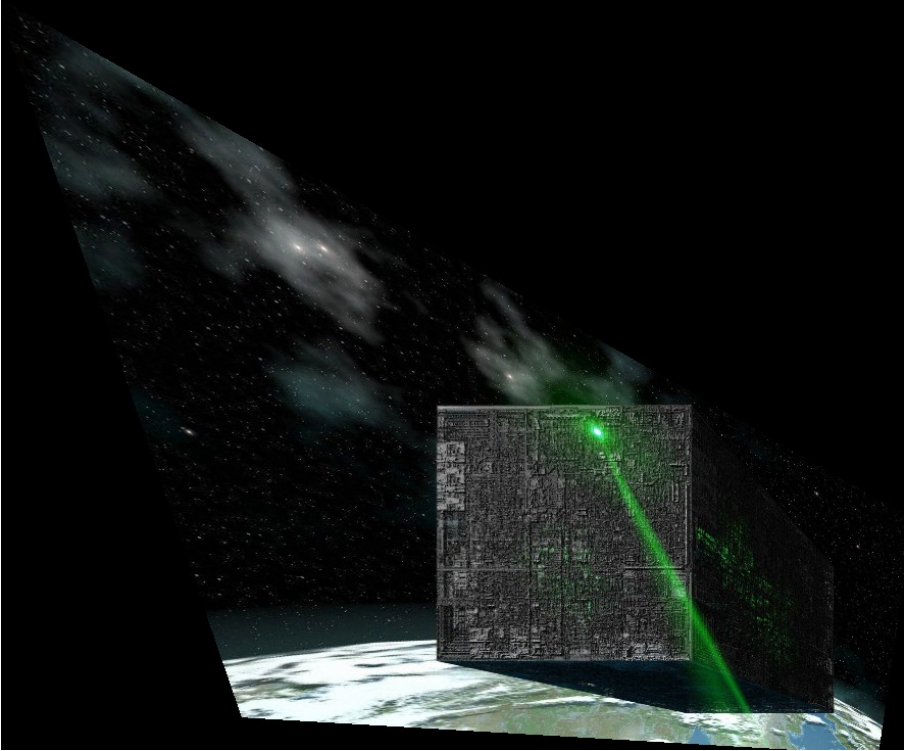
Extra Credit:

3. Rectify an image with some known planar surface and show the virtual fronto-parallel view:

Original image:



Rectified fronto-parallel view:



(image from tattoosass.blogspot.com)