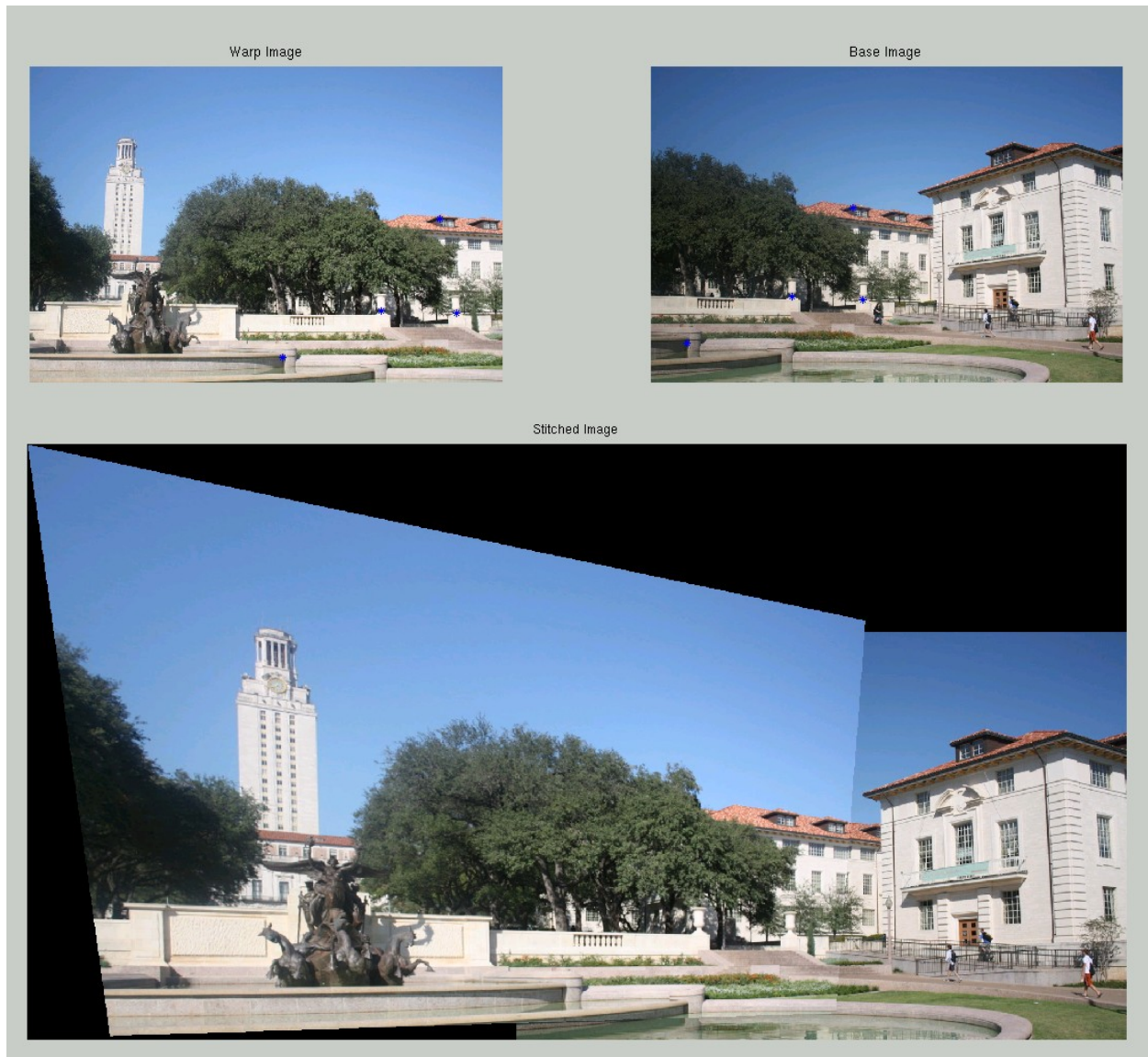


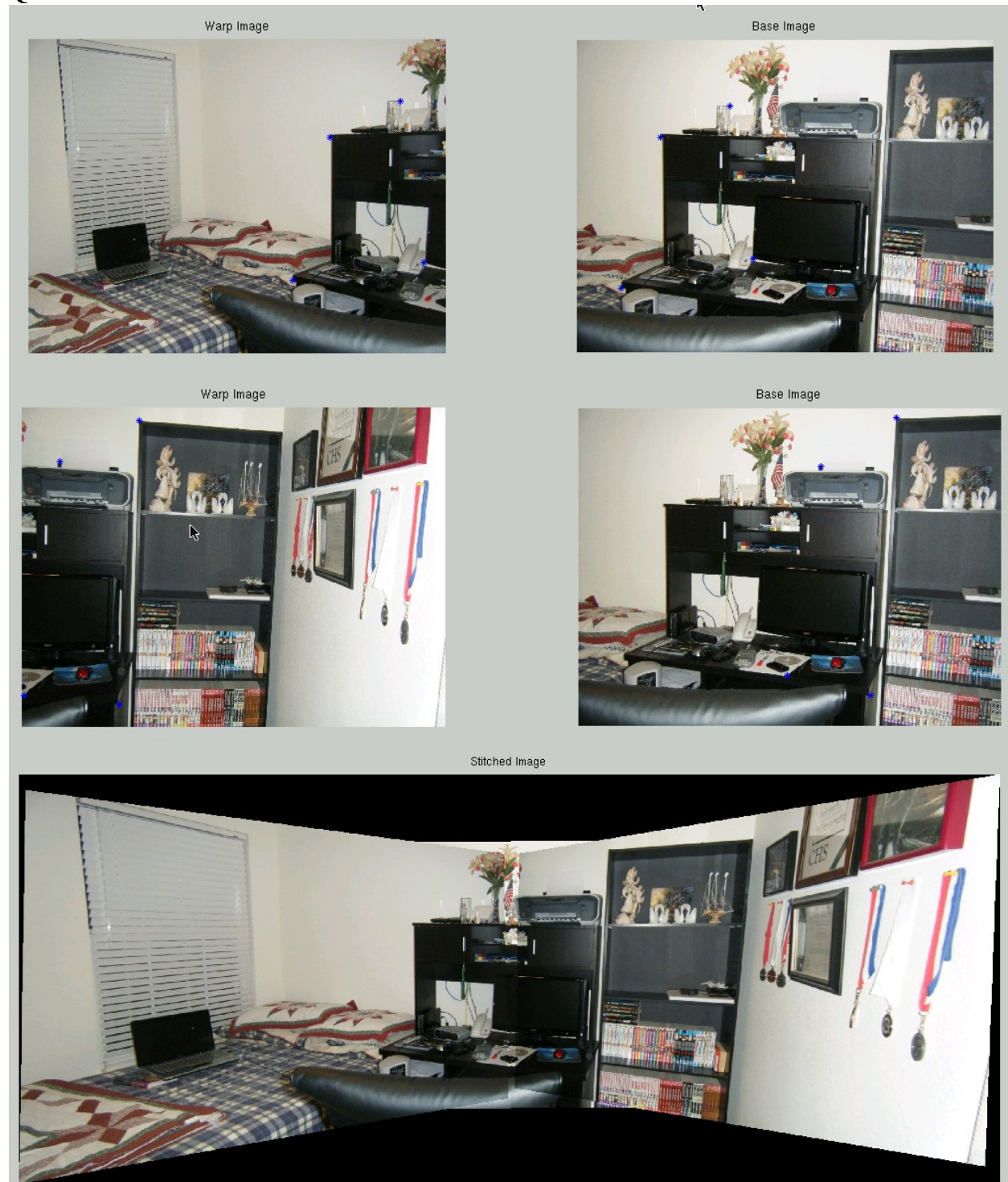
Part II

Question 1



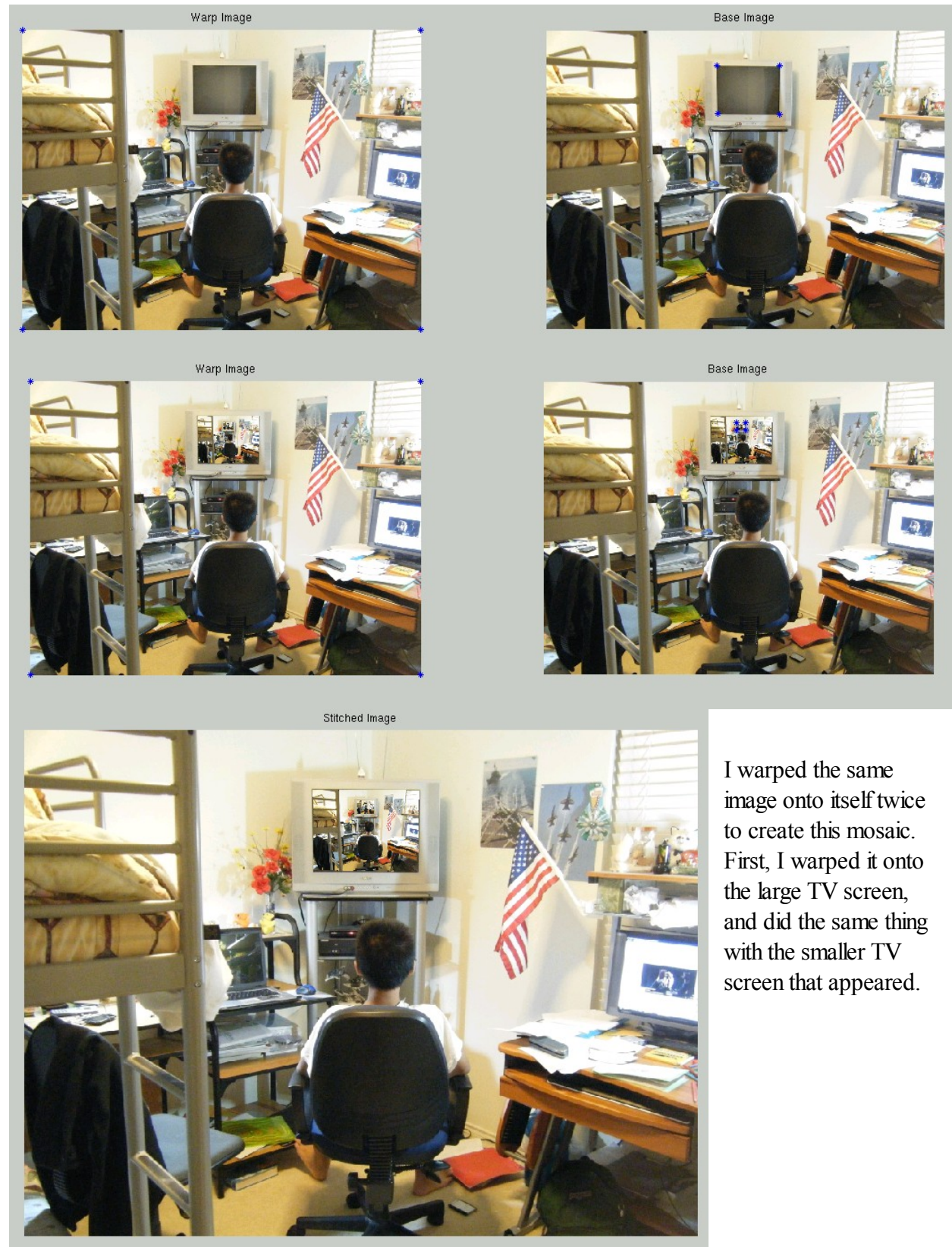
The two images and their corresponding points are displayed above. The stitched image is also displayed. The warping is not perfect, and there are some noticeable artifacts at the boundary between the two images, especially obvious near the edge of the fountain. This is because the clicked points are not exact. Furthermore, there were only four points, so the transformation was especially sensitive to a single error.

Question 2



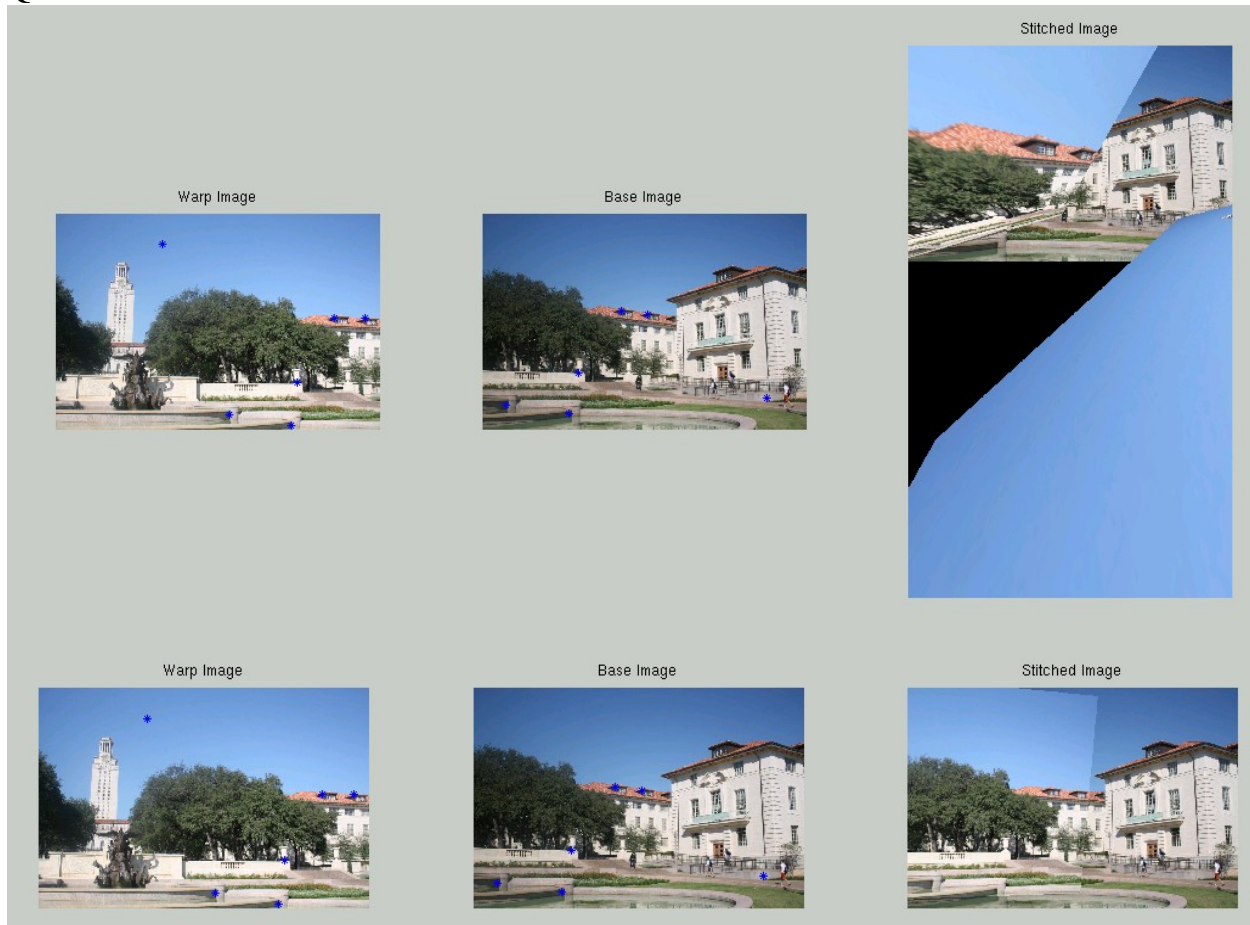
Again, corresponding points and the overall mosaic is shown above. There is some artifacts, as always, however, they are heavier between the right and middle picture. This could be a correspondence error. However, considering the difficulty I had in getting even this match, compared to the left one, it is possible that the camera center was slightly changed for the last picture.

Question 3



Part III

Question 1



Obviously, the top image was without the use of RANSAC. A single incorrect correlation pair there completely messed up the homography matrix, resulting in the strange transformation we see. RANSAC was able to eliminate the stray pair as an outlier and order was restored.

Question 2



This is an interesting example of the advantages of automatically correcting a set of correspondences. Both cases used the same original correspondences, but the second one had some automatic correcting. If we look closely at the top-right point (on the roof) the clicked point on the base image was slightly above and to the left of what we want (the warp image point). The automatic search correctly moved the point down and to the right. The same is true of the bottom two point but to a lesser extent. The difference is obvious in the resulting mosaic (next page). A good automatic correction scheme, would make a person's job much easier as he does not have to put as much care into his point selections.

Victor Vu ; UTCS Account : diragjie ; UTEID : vv995

10/26/09

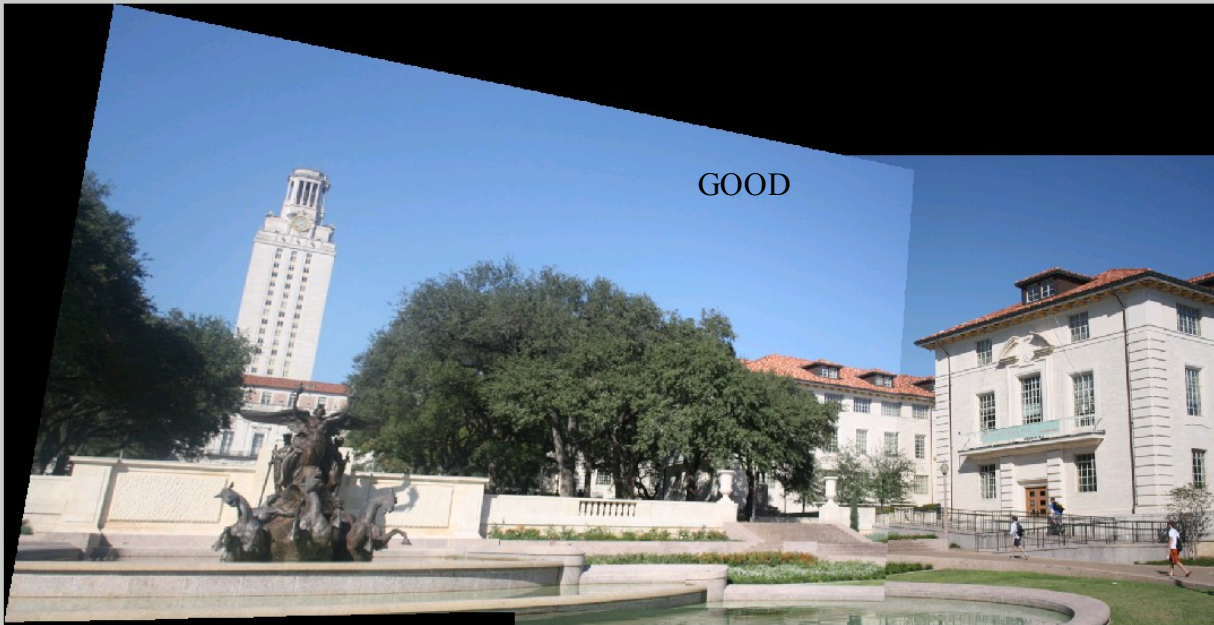
Computer Vision – Pset 3

One Day Late

Stitched Image



Stitched Image



Victor Vu ; UTCS Account : diragjie ; UTEID : vv995

10/26/09

Computer Vision – Pset 3

One Day Late

Question 3

Warp Image



Stitched Image



Benedict Hall's front entrance is now planar to the image plane thanks to the power of image warping.