

Q3



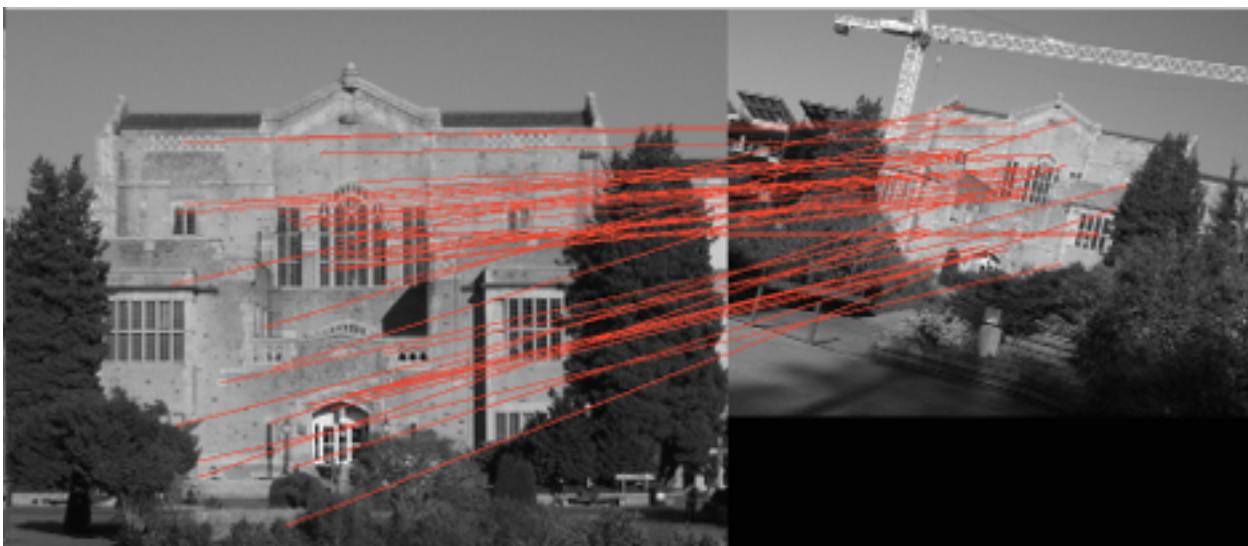
The threshold I chosen is 0.73.

The reason:

This threshold give lots of matching pairs and the outliers is less than 10, I found that if I set the value to 0.7 the inliers matches will reduce a lot, but the outstanding outliers in the bottom of the image is still there, and if I set the threshold to 0.75, there will be much more outliers in the top of the image.

It is very important to choose the right value. Since if the threshold is too big, there will be lots of outliers, but if the threshold is too small, we will lose many correct best matches.

Q4



I got the best result with threshold = 0.82 and set orientation requirement to  $\pi/8$  and scale requirement to 0.4.

The consistency checking allow us to get more accurate matching and reduce lots of outliers by eliminate those chosen matching with very different orientation and scales.

Since  $(0.82-0.73)/0.73 = 12.33\%$ , it allows us to raise the matching threshold about 12.33% degree.

