

Written Assignment 2

1. Using “Rainier1.png” and “Rainier2.png” run RANSAC using a small number of iterations. How many iterations are necessary to reliably find the correct homography? What percentage of the matches are inliers? If only 5% of the matches were inliers, how many iterations of RANSAC would need to be run?
2. Look at the function `ComputeDescriptors`. Is this descriptor invariant to intensity offset and intensity gain differences? Is it invariant to spatial translation, scale or rotation? If not, why?
3. How would vignetting make image stitching more difficult? What artifacts might you see?
4. If we wanted to stitch two images like “Hanging1.png” and “Hanging2.png” that are rotated relative to each other, how would the code need to be updated? What functions would you change?
5. How would radial distortions (in Szeliski) of an image affect a panorama stitcher? What code would need to be changed?
6. Look at the image “AllStitched.png”. Why are the images on the end stretched and distorted?