

CMPT412 (Fall 2021): Project 3
Augmented Reality With Planar Homographies
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Part4

1.



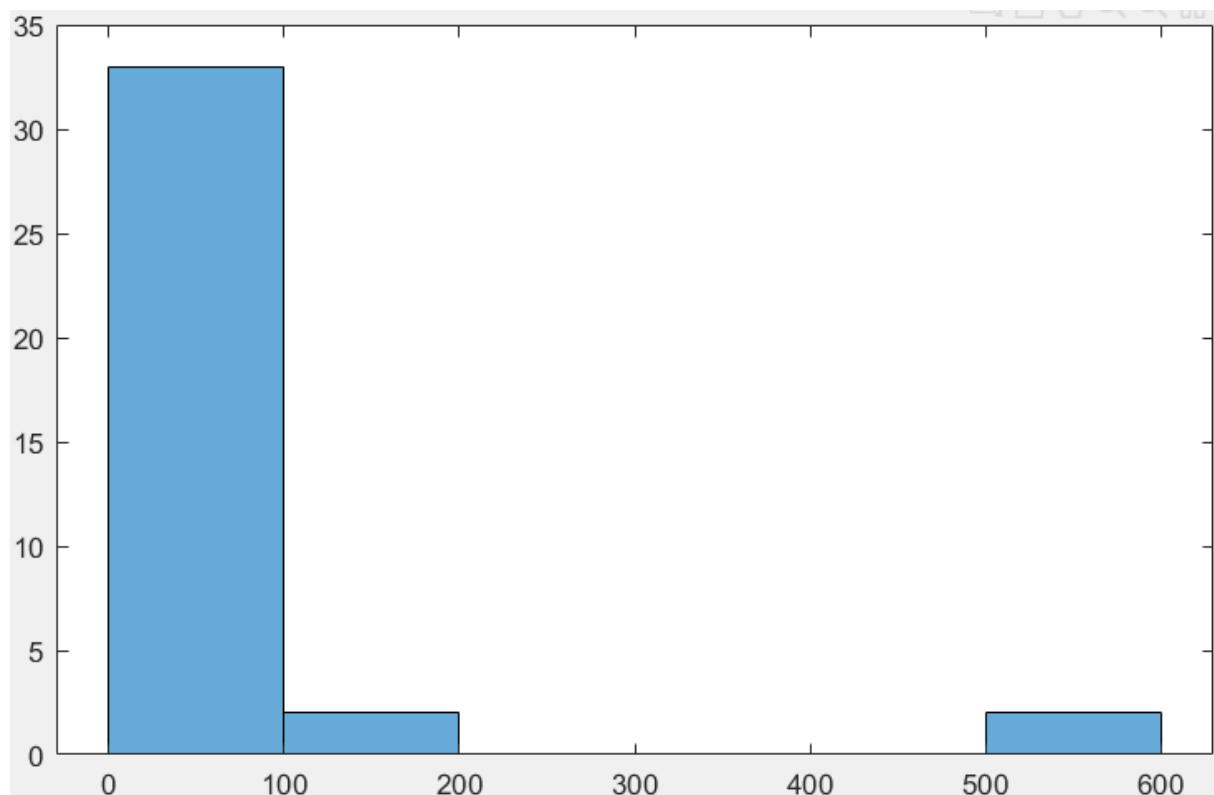
2.

Histograms:

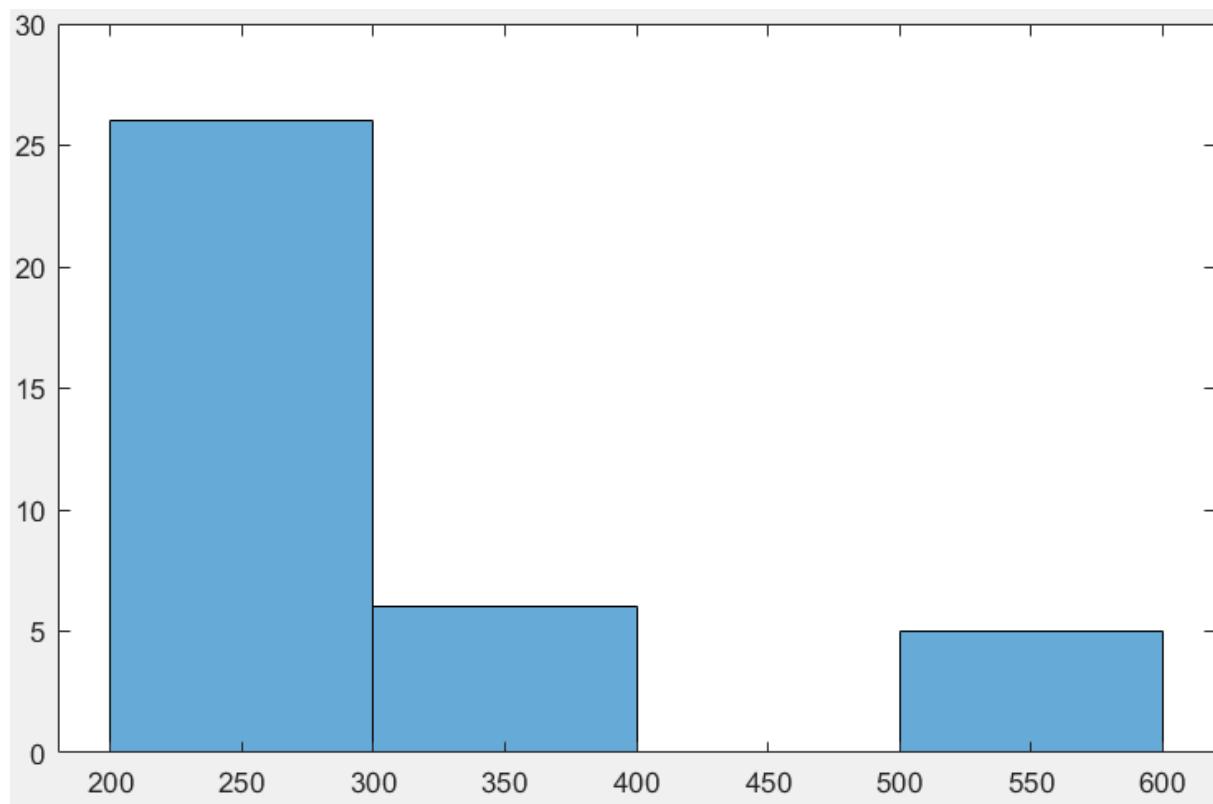
x-axis: number of detections

y-axis: number of rotations

detectFASTFeatures with BRIEF



detectSURFFeatures

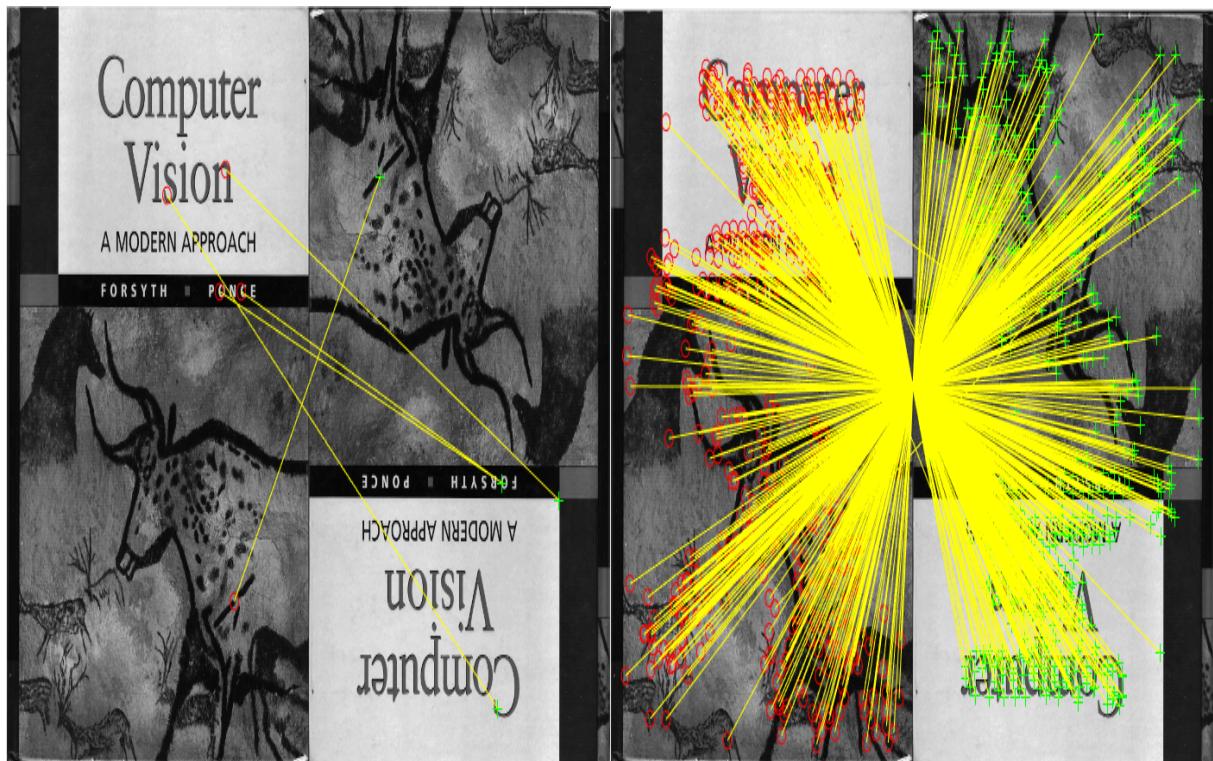


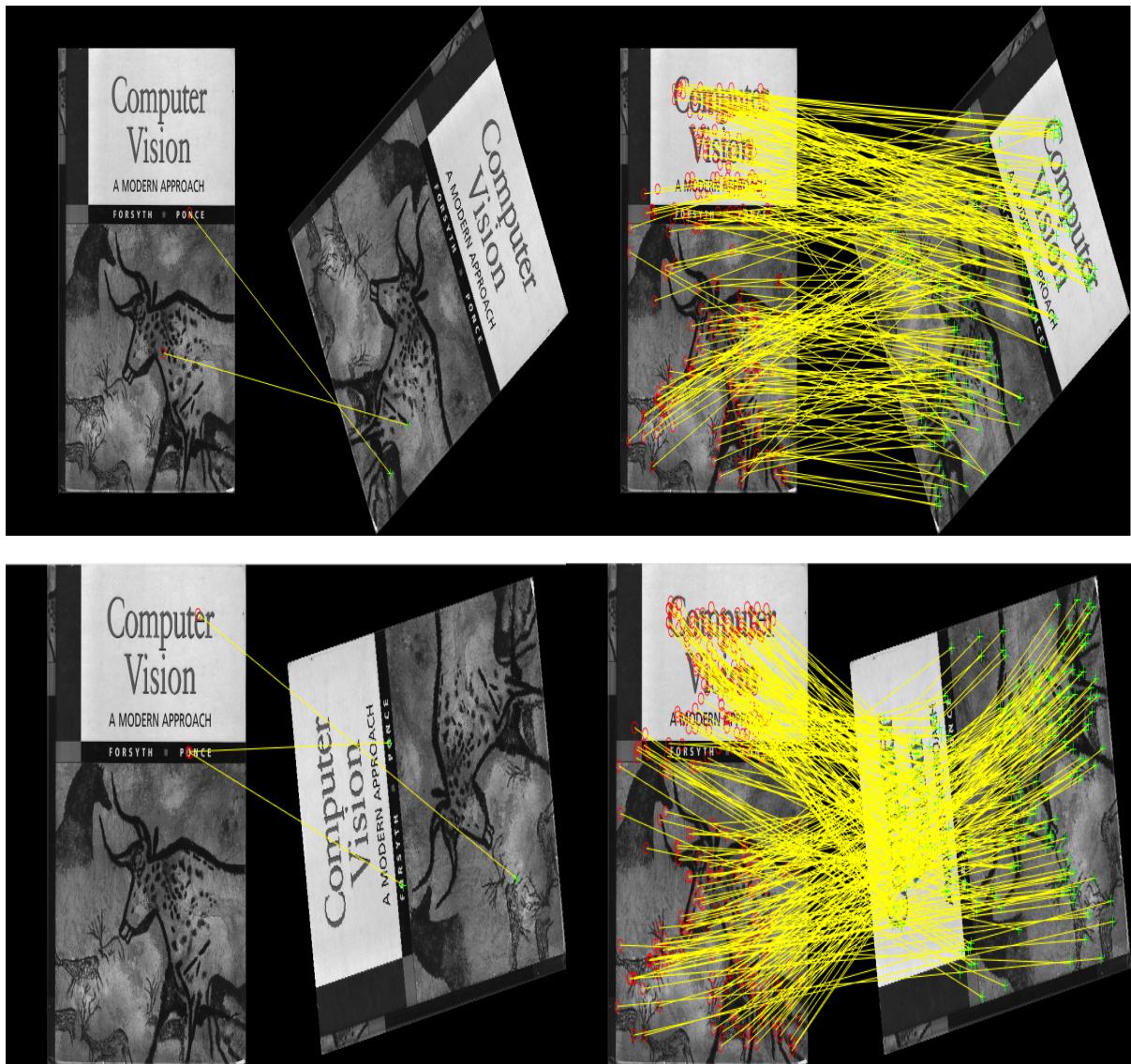
images:

detectFASTFeatures with BRIEF

VS

detectSURFFeatures

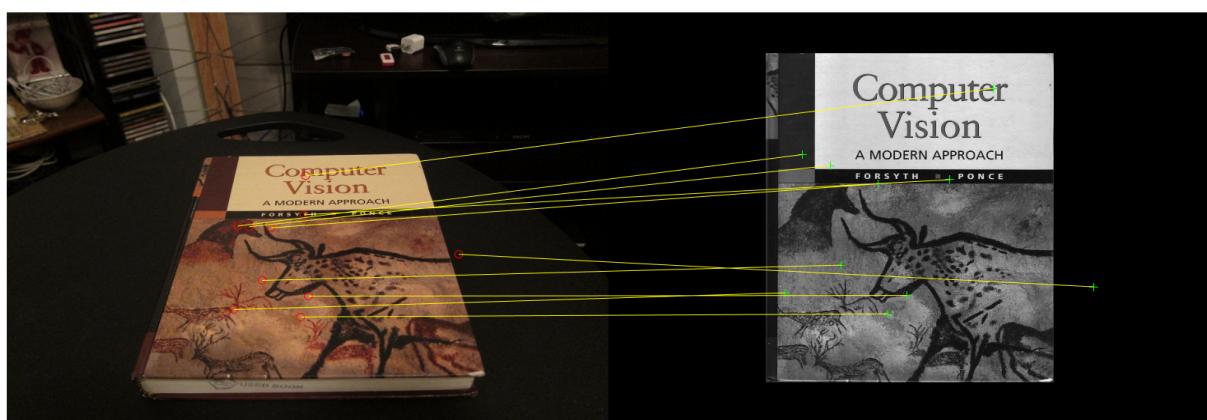
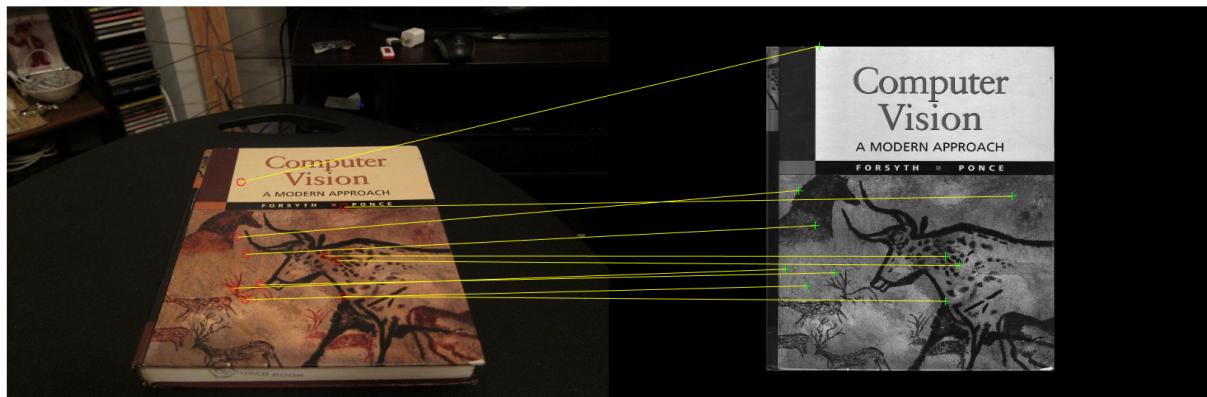




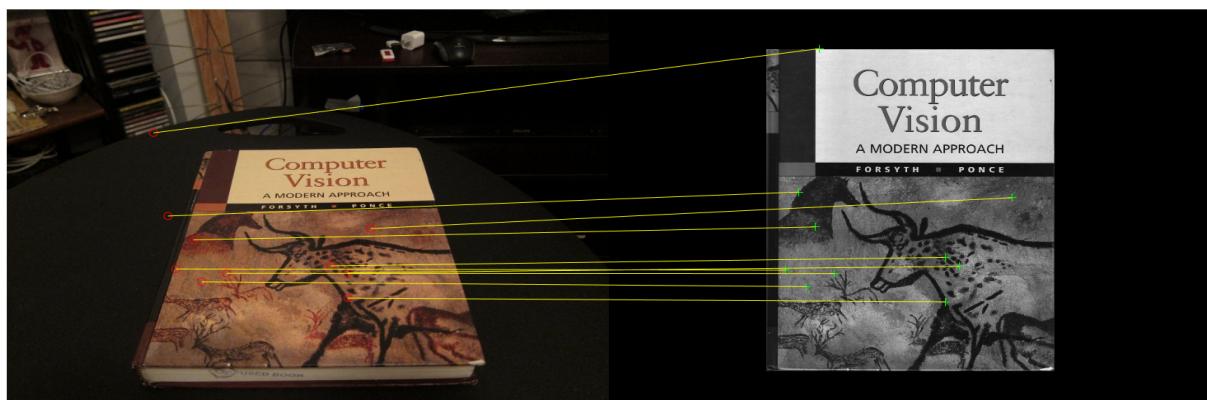
detectFASTFeatures with BRIEF detects identical objects as shaping the objects with the corner pixels of the objects, which means that the method assumes that the two objects between original images and target images are same when they have similar corner pixels, and that is not invariant about the rotated target images.

Using detectSURFFeatures significantly changed the result of the detection on the rotated images.

3. original image = cover(right), target image = desk(left)

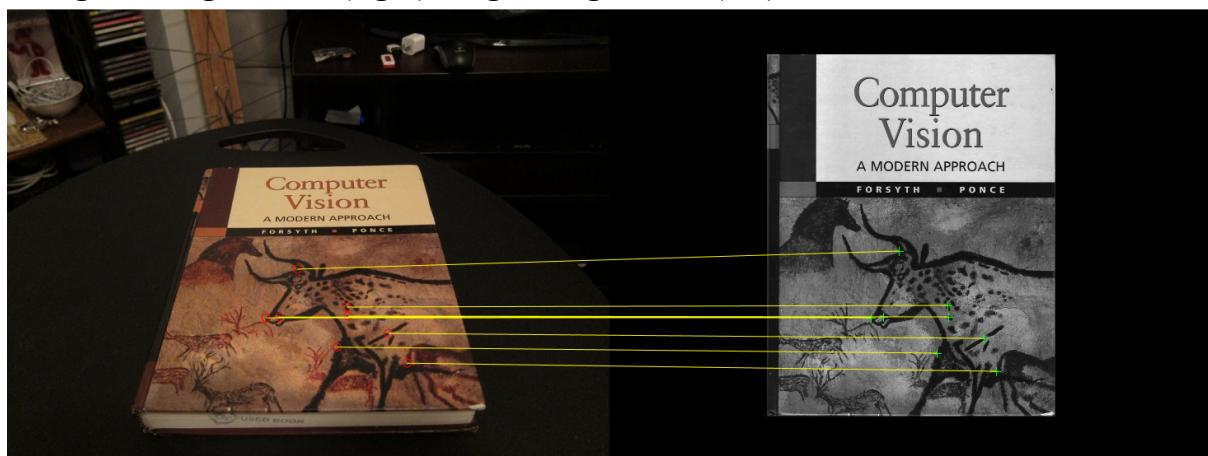


4. original image = cover(right), target image = desk(left)





5. original image = cover(right), target image = desk(left)



6.

