Computer Vision Assignment3

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Part 1.

Part2.

Part3.

Part4.

Algorithm:

For each frame in the video,

1) I use SIFT to match the features between the template and the frame.

2) Use RANSAC to filter out the better matches when finding the homography matrix.

3) Find the four points of target boundary by perspective transforming the template image to the frame.

4) Find the homography matrix and warp the reference image to the boundary on the frame.

Environment Setting

Python version: 3.7.3

Opencv version: 3.4.2