

Explanation

cv.ORB:

ORB is basically a fusion of FAST keypoint detector and BRIEF descriptor with many modifications to enhance the performance. First it use FAST to find keypoints, then apply Harris corner measure to find top N points among them. It also use pyramid to produce multiscale-features.

cv.BFMatcher:

Brute Force descriptor matcher.

For each descriptor in the first set, this matcher finds the closest descriptor in the second set by trying each one. This descriptor matcher supports masking permissible matches of descriptor sets.

We used a queryImage, found some feature points in it, we took another trainImage, found the features in that image too and we found the best matches among them.

cv.RANSAC:

We used a queryImage, found some feature points in it, we took another trainImage, found the features in that image too and we found the best matches among them.

We have seen that there can be some possible errors while matching which may affect the result. To solve this problem, we use RANSAC, good matches which provide correct estimation are called inliers and remaining are called outliers.