

COMP5421 Computer Vision

Homework Assignment 2

Feature Descriptors, Homographies and RANSAC

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1 Keypoint Detector

Q1.5

Image `model_chickenbroth.jpg` with the detected keypoints:



Figure 1:

2 BRIEF Descriptor

Q2.4

Results of BRIEF descriptor matching for the following sets of images:



Discussion: The computer vision book has the worst performance, with over half of the features wrongly mapped to other books. The image of the city also performs badly, with similar features on unrelated small buildings mapped together. In contrast, the can of chicken broth performs quite well, with most keypoints correctly mapped.