

16-720B Homework 2 Write-up

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Q1.2

Please see Figure. 1 for the DoG Pyramid of `model_chickenbroth.jpg`.



Figure 1: The DoG Pyramid of `model_chickenbroth.jpg`

Q1.5

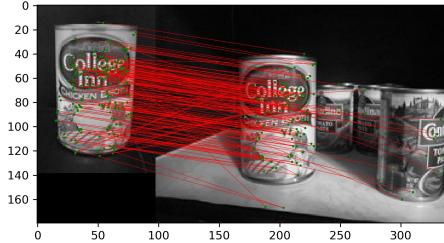
Please see Figure. 2 for the detected keypoints of `model_chickenbroth.jpg`.



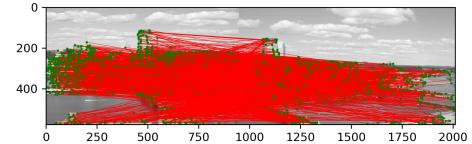
Figure 2: The detected keypoints on image `model_chickenbroth.jpg`

Q2.4

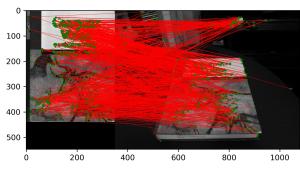
Please see Figure 3 for the matching results. From the results, we can see that if the object is rotated, the matching performance will be much worse than those with little or no rotation (compare Figure. 3 (d)(g) with Figure. 3 (c)(f)).



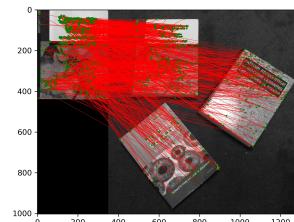
(a) match of two of the `chickenbroth` images.



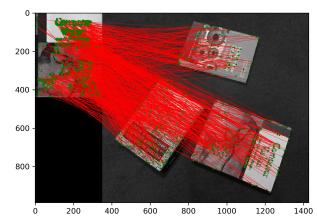
(b) match of the `incline` images.



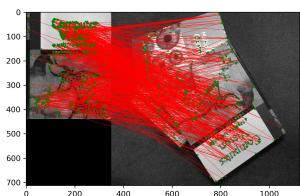
(c) match of `pf_scan_scaled.jpg` against `pf_desk.jpg`.



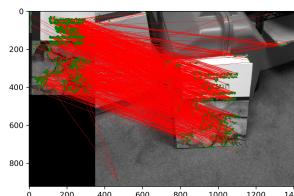
(d) match of `pf_scan_scaled.jpg` against `pf_floor.jpg`.



(e) match of `pf_scan_scaled.jpg` against `pf_floor_rot.jpg`.



(f) match of `pf_scan_scaled.jpg` against `pf_pile.jpg`.



(g) match of `pf_scan_scaled.jpg` against `pf_stand.jpg`.

Figure 3: Results of Feature Match.

Q2.5