GG
GRAPHICS GROUP

IVS Intelligent Vision Systems New Zealand

CompSci 773: Intelligent Vision Systems

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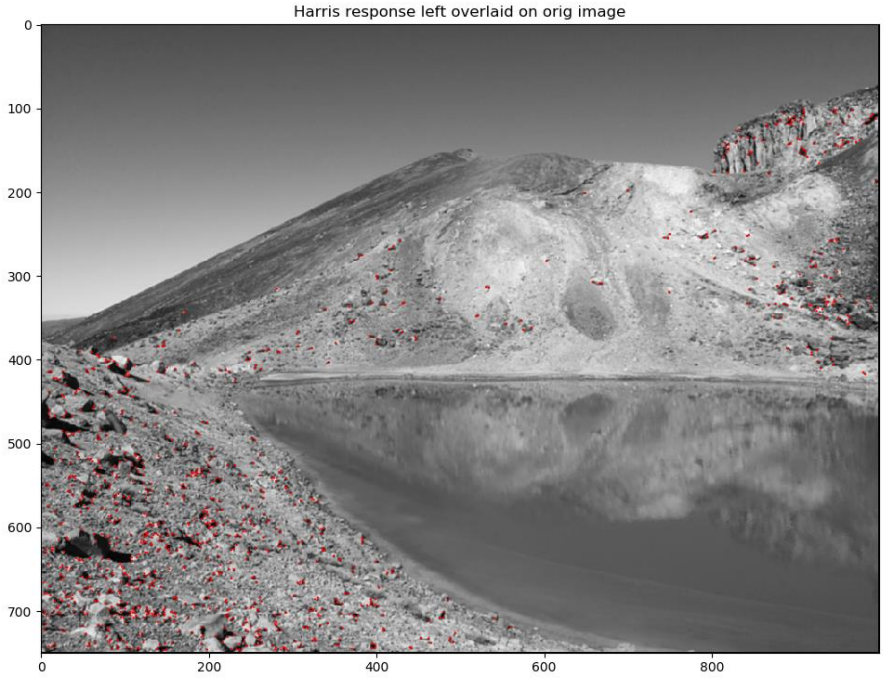
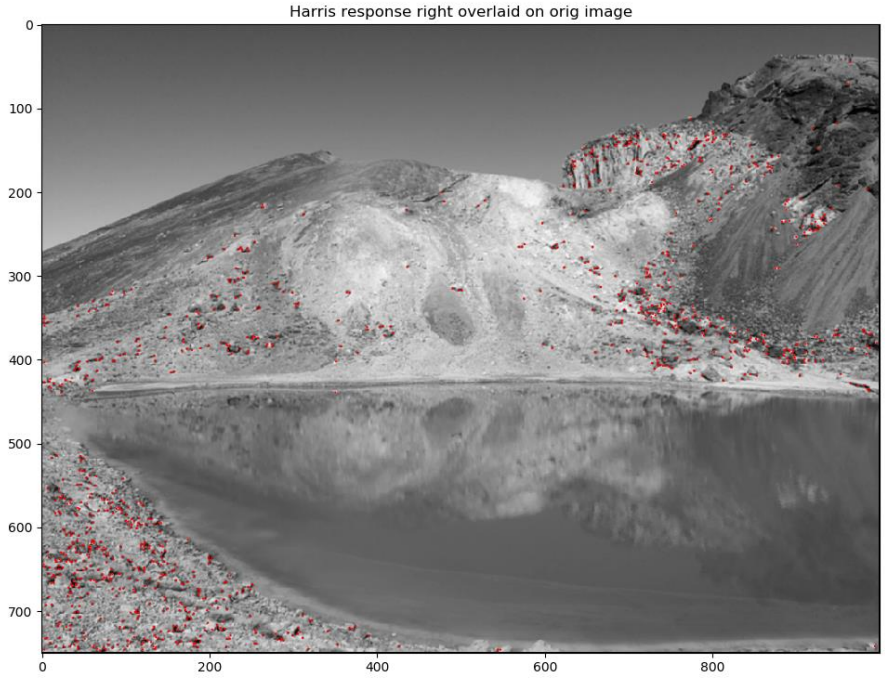
Assignment Image Stitching

- Motivation: I have my holiday images from Tongariro Alpine Crossing…

Assignment Image Stitching

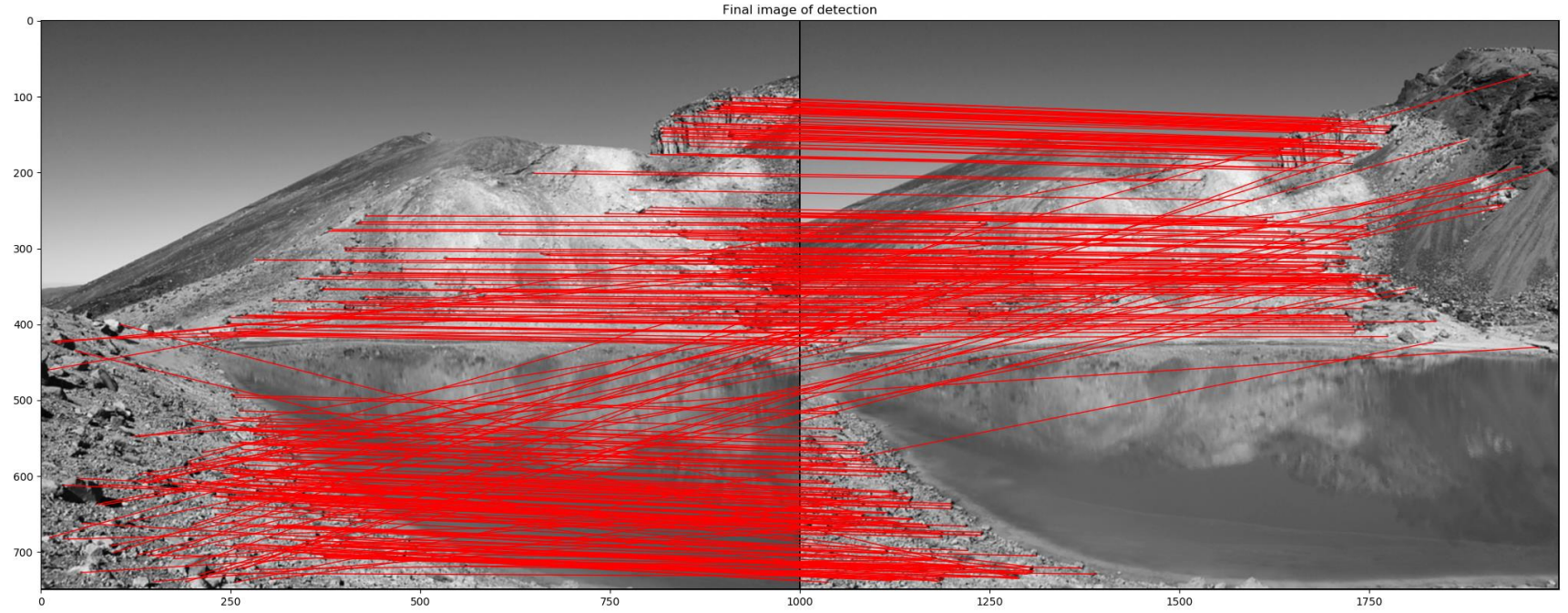
- Phase 1: Extraction of Harris corners
  - Done





Assignment Image Stitching

- Phase 2: Extraction of descriptors and matching
  - Due date: Friday, 28th of May, 23:59
  - For every Harris corner in both images, precompute an axis-aligned descriptor suitable for normalized cross correlation (NCC) based matching
  - Perform brute force O(n^2) matching based on NCC score and the score robustness measure from the lecture (see slide Feature Matching)



Assignment Image Stitching Hints

1) A 15x15 window choice for the NCC computation is reasonable (i.e. 225 dimensional feature descriptor vector)
2) For NCC: What can be precomputed per image, what has to be computed during matching?
3) Think about a suitable data structure to store the descriptors associated with the 1000 corners per image
4) NCC gives a maximal matching score of 1 for pairs of descriptors
5) A good choice for the matching ratio test is 0.9