

Image Processing Project 3 Report

Tags

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Images to be processed

Image 3 - Click points here first

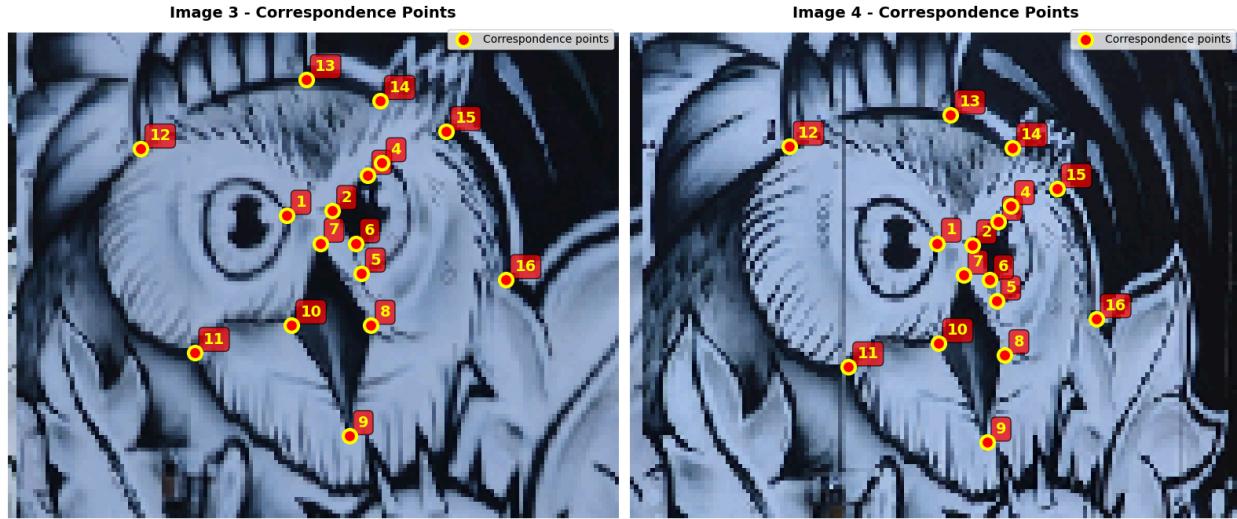


Image 4 - Click corresponding points here



Source: <https://github.com/hpatches/hpatches-dataset/blob/master/img/images.png>

16 correspondence points



homography matrix

$$H = \begin{pmatrix} 1.62840125 & 0.128912381 & -11.0167151 \\ 0.476408279 & 1.45481758 & -23.8743775 \\ 0.00526351762 & 0.00152546345 & 1 \end{pmatrix}$$

Homography accuracy

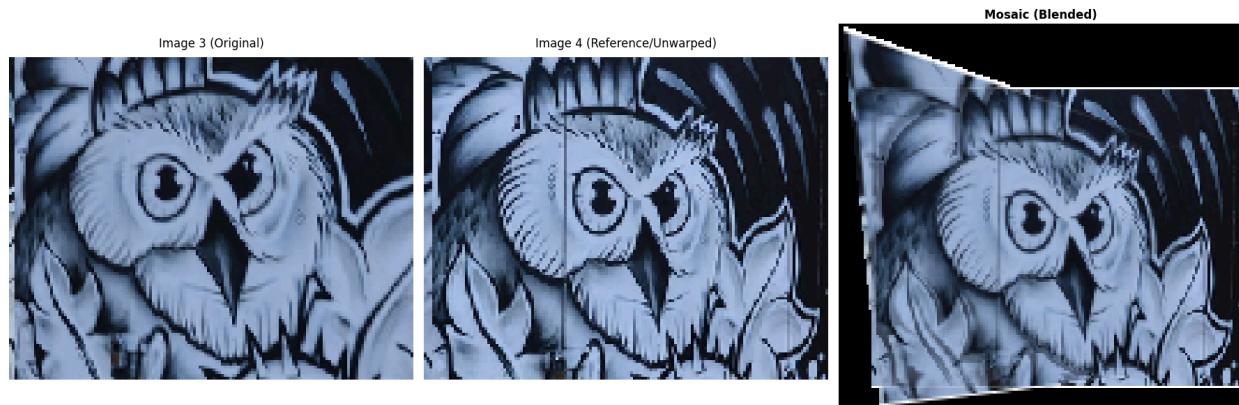
Mean reprojection error: 0.74 pixels

Max reprojection error: 1.48 pixels

Image warping

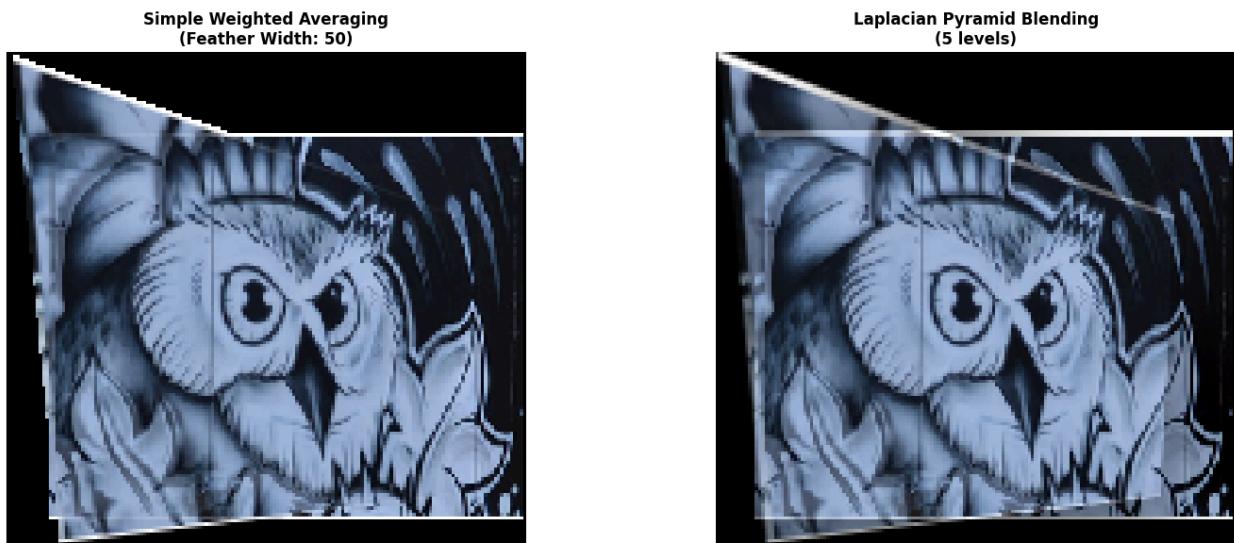


Mosaic blend



Where feather_width=50

Laplacian pyramid blending



MoMA paintings rectification

Original Image 1
Christinas World — Wyeth.jpeg



Rectified Image 1
121.3cm x 82.9cm



Original Image 2
The Starry Night — Van Gogh.jpeg



Rectified Image 2
92.1cm x 73.7cm



Original Image 3
Les Demoiselles d'Avignon — Picasso.jpeg



Rectified Image 3
233.7cm x 243.9cm



Original Image 4
Dance (I) — Matisse.jpeg



Rectified Image 4
390.1cm x 259.7cm



Original Image 5
Girl Before a Mirror — Picasso.jpeg



Rectified Image 5
130.2cm x 162.3cm



Original Image 6
The Birth of the World — Miró.jpeg



Rectified Image 6
200.7cm x 250.8cm

