

2018033_CV_HW14: Q1 Done

Code: `prewitt.py`

- The **kernel** for the filter:
 - `kernel = np.array([[-1, -1, -1], [0, 0, 0], [1, 1, 1]])`
 - `kernel_x = kernel`
 - `kernel_y = kernel.T`
- **Ex**: map for horizontal edges generated by convolving over `kernel_x`
- **Ey**: map for horizontal edges generated by convolving over `kernel_y`
- **E**: combined map generated by `E = np.sqrt(Ex**2 + Ey**2)`
- Ex, Ey, and E all were normalized by dividing with the respective max value.

How to run?: `python <code-file-path> <image-path>`
(e.g. `python prewitt.py dog.png`).

Output:

- The top left image is the input.
- The bottom left image is the combined map
- The top-right image is Ex (horizontal edge map)
- The bottom-right image is Ey (vertical edge map)

