

Homework2: Cassandra Cabrera and Mike Menendez Due: Feb 24, 2020

Summary: For this homework we used the glob python library to read in multiple images from our "images" directory. We added these images into a list of all images. Once we had the images list, we looped through each pixel from each image and added those to a list of their own. We then calculated what the median of the pixel at each point would be, to take out the anomaly. We added this calculated median to a new image and then displayed it.

Code:

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'''
from PIL import Image
import glob
# HW 2: Temporal Processing of Images
# Steps:
# - Read in all images
# - Create a list for each pixel location
# - Create a new image with largest combined dimensions (largest: x, y)
# - Insert the median value from each list into the new image

#will iterate through the pixels of each image and find the median of the pixels
#will add the median pixel to a new "final" image
def aggregate(imgs):
    pic = Image.new("RGB", (imgs[0].width, imgs[0].height), "white")
    for x in range(imgs[0].width):
        for y in range(imgs[0].height):
            pix = []
            for i in imgs:
                pix.append(i.getpixel((x,y)))

            pix.sort()
            val = int(len(pix)/2)
            pic.putpixel((x,y), pix[val])
    pic.save("images/final.png")
    pic.show()

#uses the python Glob library to read in multiple images from a directory
#and will add them into a list
def readin():
    imgs = glob.glob("images/*")
    imgs = [Image.open(image) for image in imgs]
    return imgs

#main function will call all functions
def main():
    imgs = readin()

    aggregate(imgs)

if __name__ == "__main__":
    main()
```

Results from The HW:

