import cv2

import matplotlib.pyplot as plt

import numpy as np

def main():

path = "C:/Users/DELL 3468/Desktop/TY Shit/Python/Image Restoration Tool/Python-OpenCV3-master/Dataset/"

imgpath = path + "Damaged Image.tiff"

img = cv2.imread(imgpath, 1)

img = cv2.cvtColor(img, cv2.COLOR\_BGR2RGB)

height = np.size(img, 0)

width = np.size(img, 1)

output1 = []

output2 = []

gcreatedMask = []

output1.append(img)

output2.append(img)

gcreatedMask.append(img)

cv2.imwrite("op.jpg",img)

for ii in range(1, 4):

iii = cv2.imread("op.jpg", 1)

createdMask = np.zeros([width, height])

grayimg = cv2.cvtColor(iii, cv2.COLOR\_BGR2GRAY)

for i in range(1, width-1):

for j in range(1, height-1):

if grayimg[i, j] > 0:

createdMask[i, j] = 0

else:

createdMask[i, j] = 255

gb\_kernel = cv2.getGaborKernel((21, 21), 8.0, np.pi/4, 10.0, 0.5, 0, ktype=cv2.CV\_32F)

gcreatedMask.append(cv2.filter2D(createdMask, cv2.CV\_8U, gb\_kernel.transpose()))

cv2.imwrite("op.jpg", cv2.inpaint(img, gcreatedMask[ii], 5, cv2.INPAINT\_TELEA))

output1.append(cv2.inpaint(img, gcreatedMask[ii], 5, cv2.INPAINT\_TELEA))

output2.append(cv2.inpaint(img, gcreatedMask[ii], 5, cv2.INPAINT\_NS))

output = [img, gcreatedMask[1], output1[1], output2[1], gcreatedMask[2], output1[2], output2[3], gcreatedMask[3], output1[3], output2[3], gcreatedMask[0], output1[0], output2[0]]

titles = ['Damaged Image', 'Mask1', 'TELEA1', 'NS1', 'Mask2', 'TELEA2', 'NS2', 'Mask3', 'TELEA3', 'NS3', 'Mask4', 'TELEA4', 'NS4']

for i in range(10):

plt.subplot(3, 4, i + 1)

if i == 1:

plt.imshow(output[i], cmap='gray')

else:

plt.imshow(output[i])

plt.title(titles[i])

plt.xticks([])

plt.yticks([])

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

main()