import numpy as np

import cv2

import csv

from matplotlib import pyplot as plt

# load image

img1 = cv2.imread('/Users/alisa/Desktop/sift.jpg',0) # queryImage

img2 = cv2.imread('/Users/alisa/Desktop/siftt.jpg',0) # trainImage

# Initiate SIFT detector

sift = cv2.xfeatures2d.SIFT\_create()

# find the keypoints and descriptors with SIFT

kp2, des2 = sift.detectAndCompute(img2,None)

# read feature from file

with open('/Users/alisa/Desktop/q.csv') as csvDataFile:

csvReader = csv.reader(csvDataFile)

for gr\_img1 in csvReader:

des1=gr\_img1

# Read keypoints from file

kp1 = []

lines = [line.strip() for line in open('/Users/alisa/Desktop/ali.txt')]

for line in lines:

list = line.split(',')

kps = cv2.KeyPoint(x=float(list[0]), y=float(list[1]), \_size=float(list[2]),

\_angle=float(list[3]),

\_response=float(list[4]), \_octave=int(list[5]),

\_class\_id=int(list[6]))

kp1.append(kps)

# create BFMatcher object

bf = cv2.BFMatcher(cv2.NORM\_HAMMING, crossCheck=True)

# Match descriptors.

matches = bf.match(des1,des2)

# Sort them in the order of their distance.

matches = sorted(matches, key = lambda x:x.distance)

# Draw first 10 matches.

img3 = cv2.drawMatches(img1,kp1,img2,kp2,matches[:10],None, flags=2)

plt.imshow(img3),plt.show()