GEOMENTRIC TRANSFORMATIONS

import numpy as np

import cv2 as cv

#getting input image

Img = cv.imread('joker.jpg',1)

#for portrait

#img = cv.resize(im,(480,720))

#tilt the image into slanting

def tilt(img):

rows,cols,ch = img.shape[:3]

pts1 = np.float32([[50,50],[200,50],[50,200]])

pts2 = np.float32([[10,100],[200,50],[100,200]])

M = cv.getAffineTransform(pts1,pts2)

res = cv.warpAffine(img,M,(cols,rows))

return res

#it magnify the image and get the image focused

def zoom(img):

rows,cols,ch = img.shape[:3]

pts1 = np.float32([[46,65],[300,65],[46,300],[300,300]])

pts2 = np.float32([[10,10],[350,10],[10,350],[350,350]])

M = cv.getPerspectiveTransform(pts1,pts2)

res = cv.warpPerspective(img,M,(cols,rows))

return res

cv.imshow('Tilted Image',tilt(img))

cv.waitKey()

cv.imshow('Focused Image',zoom(img))

cv.waitKey()

cv.destroyAllWindows()

OUTPUT

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| ORIGINAL IMAGE  C:\Users\student\Downloads\violin.jfif | |
| AFFINE TRANSFORMATION | PERSPECTIVE TRANSFORMATION |