from google.colab import files

import cv2

import numpy as np

from matplotlib import pyplot as plt

from PIL import Image

import io

uploaded = files.upload()

filename = next(iter(uploaded))

image\_stream = io.BytesIO(uploaded[filename])

image\_pil = Image.open(image\_stream).convert("RGB")

image = cv2.cvtColor(np.array(image\_pil), cv2.COLOR\_RGB2BGR)

rows, cols = image.shape[:2]

src\_points = np.float32([[50, 50], [cols-50, 50], [50, rows-50], [cols-50, rows-50]])

dst\_points = np.float32([[0, 0], [cols, 0], [0, rows], [cols, rows]])

matrix = cv2.getPerspectiveTransform(src\_points, dst\_points)

warped\_image = cv2.warpPerspective(image, matrix, (cols, rows))

original\_rgb = cv2.cvtColor(image, cv2.COLOR\_BGR2RGB)

warped\_rgb = cv2.cvtColor(warped\_image, cv2.COLOR\_BGR2RGB)

plt.figure(figsize=(10,5))

plt.subplot(1, 2, 1)

plt.title('Original Image')

plt.imshow(original\_rgb)

plt.axis('off')

plt.subplot(1, 2, 2)

plt.title('Perspective Transformed')

plt.imshow(warped\_rgb)

plt.axis('off')

plt.show()

