AI Homework 1: Digital Image and Geometric Transformation

ITC-AMS

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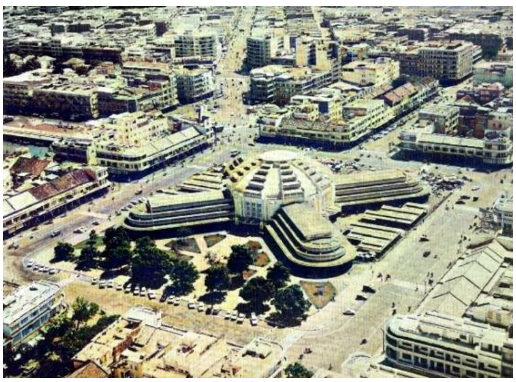
2025-2026

1. Coloring Image

Given that an old image named “center_market.jpg”, located in the image_test_1 folder, was taken around the 1990s in Phnom Penh city, our objective is to apply image enhancement techniques to make it more colorful, as shown in the output.

Original Image

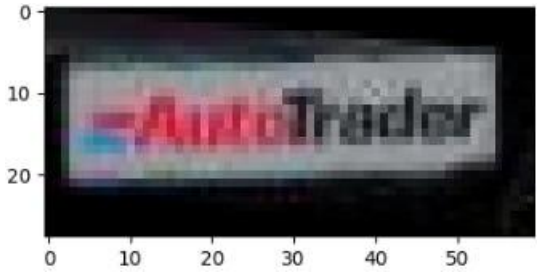


Output Image

2. Geometric Image

Given that an image named "car.jpg", located in the image_test_1 folder, contains a photograph of a car with a visible logo, our objective is to apply geometric transformations and enhancements to highlight and manipulate the car's features, as shown in the output.

Original Image



Output Image

Model answer

Question: How to convert an image to gray scale.

List down your technique

- Input image following Open CV by function `cv2.imread('image_name')`
- Convert to grayscale with function `cv2.cvtColor()`

Code Implement

```
1. img = cv2.imread('center_market.jpg')
2. img_gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
3. plt.imshow(img_gray, cmap='gray')
4. plt.show()
```