

CODE:

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import cv2

import numpy as np

import os


# Load the original image

original_path = r"C:\Users\harik\Downloads\CV LAB\MOUNTAIN.jpeg" # Replace with your image
path

watermark_path = r"C:\Users\harik\Downloads\CV LAB\watermark-logo-png-transparent.png"    #
Replace with your watermark image path


original = cv2.imread(original_path)

if original is None:

    print("Error: Could not load original image.")

    exit()


# Try to load the watermark image

if os.path.exists(watermark_path):

    watermark = cv2.imread(watermark_path, cv2.IMREAD_UNCHANGED)

    if watermark is None:

        print("Error: Watermark image is corrupted or unreadable.")

        exit()


# Resize watermark

(h_o, w_o) = original.shape[:2]

(w_w, w_h) = (int(w_o * 0.2), int(h_o * 0.2)) # 20% size

watermark = cv2.resize(watermark, (w_w, w_h))


# Split channels if watermark has alpha

if watermark.shape[2] == 4:

    overlay = watermark[:, :, :3]
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alpha = watermark[:, :, 3] / 255.0

alpha = cv2.merge([alpha, alpha, alpha])

else:

    overlay = watermark

    alpha = np.ones_like(overlay, dtype=np.float32)


# Set position: bottom-right corner
x_offset = w_o - w_w - 10
y_offset = h_o - w_h - 10
roi = original[y_offset:y_offset + w_h, x_offset:x_offset + w_w]


# Blend watermark into ROI
blended = (alpha * overlay + (1 - alpha) * roi).astype(np.uint8)
original[y_offset:y_offset + w_h, x_offset:x_offset + w_w] = blended


else:

    # Fallback to text-based watermark

    print("Watermark image not found. Using text watermark instead.")

    font = cv2.FONT_HERSHEY_SIMPLEX

    text = "CONFIDENTIAL"

    font_scale = 1

    thickness = 2

    color = (0, 0, 255) # Red text

    text_size = cv2.getTextSize(text, font, font_scale, thickness)[0]

    x = original.shape[1] - text_size[0] - 10

    y = original.shape[0] - 10

    cv2.putText(original, text, (x, y), font, font_scale, color, thickness, cv2.LINE_AA)


# Show and Save

cv2.imshow("Watermarked Image", original)

cv2.imwrite("watermarked_output.jpg", original)

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cv2.waitKey(0)
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cv2.destroyAllWindows()
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OUTPUT:

