1. **Perform edge detection using Sobel Matrix along x-axis**

**Aim:**

To perform edge detection using Sobel Matrix along x-axis using python.

**Code:**

import cv2

import numpy as np

img = cv2.imread(r"C:\Users\prith\Documents\CV\cvimage.jpg")

cv2.imshow('Original', img)

cv2.waitKey(0)

img\_gray = cv2.cvtColor(img, cv2.COLOR\_BGR2GRAY)

img\_blur = cv2.GaussianBlur(img\_gray, (3,3), 0)

sobelx = cv2.Sobel(src=img\_blur, ddepth=cv2.CV\_64F, dx=1, dy=0, ksize=5)

sobelx = cv2.convertScaleAbs(sobelx)

cv2.imshow('Sobel X', sobelx)

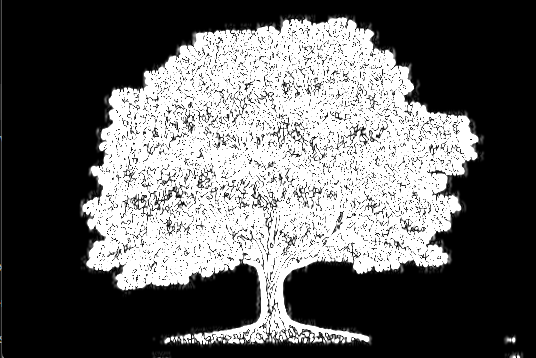
cv2.waitKey(0)

cv2.destroyAllWindows()

**Input:**



**Output:**

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**Result:**

The python code to perform edge detection using Sobel Matrix along x-axis has been executed successfully.