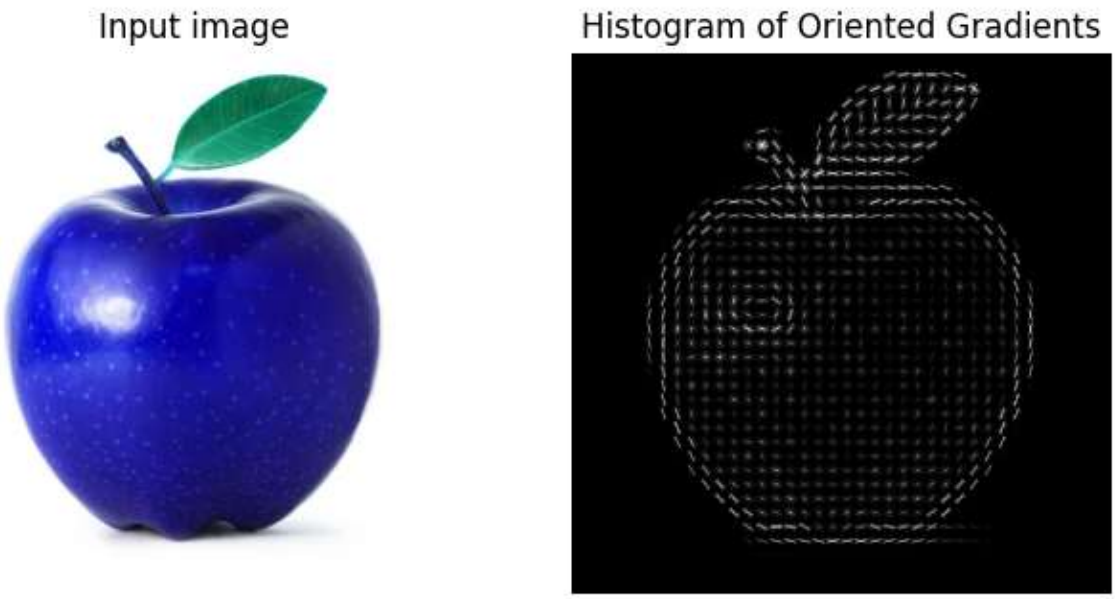
In [ ]:
```
import cv2
import matplotlib.pyplot as plt

# Loading the image
img = cv2.imread('test1.png')

 # Converting image to grayscale
gray= cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)

# Applying SIFT detector
sift = cv2.SIFT_create()
kp = sift.detect(gray, None)

# Marking the keypoint on the image using circles
img=cv2.drawKeypoints(gray ,
                      kp ,
                      img ,
                      flags=cv2.DRAW_MATCHES_FLAGS_DRAW_RICH_KEYPOINTS)

cv2.imwrite('image-with-keypoints.jpg', img)
```

Out[ ]: True

In [ ]:
```
import matplotlib.pyplot as plt

from skimage.feature import hog
from skimage import data, exposure


image = cv2.imread('test2.jpg')

fd, hog_image = hog(image, orientations=8, pixels_per_cell=(16, 16),
                    cells_per_block=(1, 1), visualize=True, channel_axis=-1)

fig, (ax1, ax2) = plt.subplots(1, 2, figsize=(8, 4), sharex=True, sharey=True)

ax1.axis('off')
ax1.imshow(image, cmap=plt.cm.gray)
ax1.set_title('Input image')

# Rescale histogram for better display
hog_image_rescaled = exposure.rescale_intensity(hog_image, in_range=(0, 10))

ax2.axis('off')
ax2.imshow(hog_image_rescaled, cmap=plt.cm.gray)
ax2.set_title('Histogram of Oriented Gradients')
plt.show()
```



In [ ]: