

이미지 다루기 실습 결과 리뷰

전진희

```
# 타입 크기 확인
image_type = type(image)
image_height, image_width, image_channel = image.shape # 그냥 외워
print("이미지 타입 : ", image_type)
print("이미지 크기 : ", image_height, image_width, image_channel) # 채널은 RGB
```

이미지 타입 : <class 'numpy.ndarray'>
이미지 크기 : 162 310 3

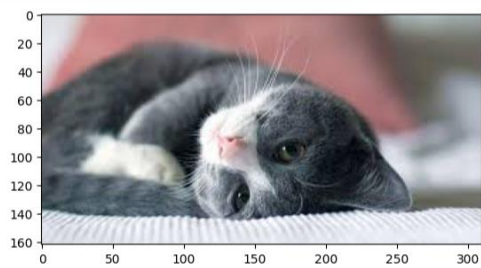
타입 크기 확인

이미지 확인하기 ¶

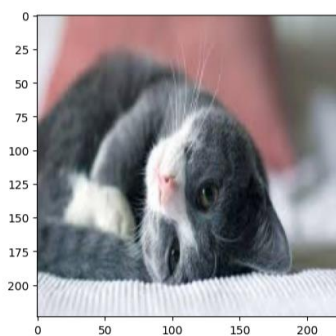
```
import cv2
import matplotlib.pyplot as plt

image_path = './data/cat.png'
image = cv2.imread(image_path)
image = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)

plt.imshow(image)
plt.show()
```



이미지 확인



사이즈 변경

```

1: import cv2

# 우리가 아까 만들어둔 resize image 저장
# 이미지 저장

cv2.imwrite("../data/resize_image.png", image_resize)

```

```

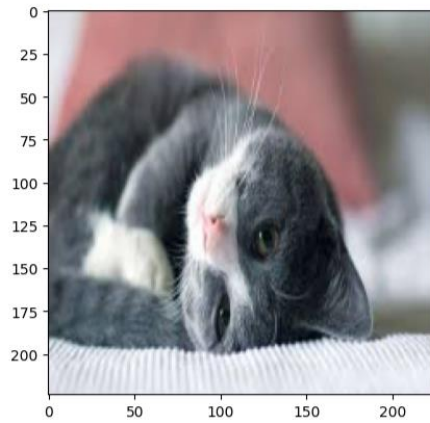
]: True

```

```

1: # 불러오기
test = cv2.imread("../data/resize_image.png")
plt.imshow(test)
plt.show()

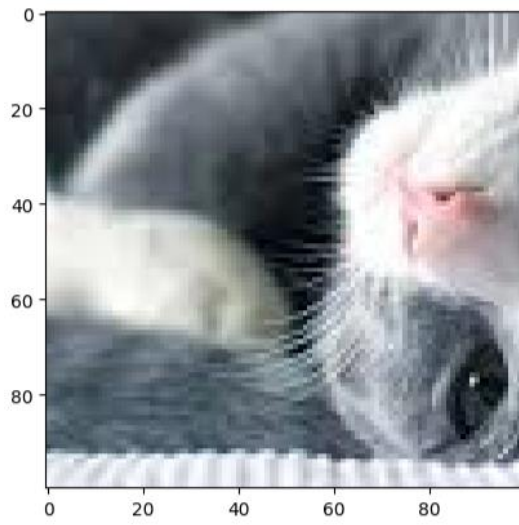
```



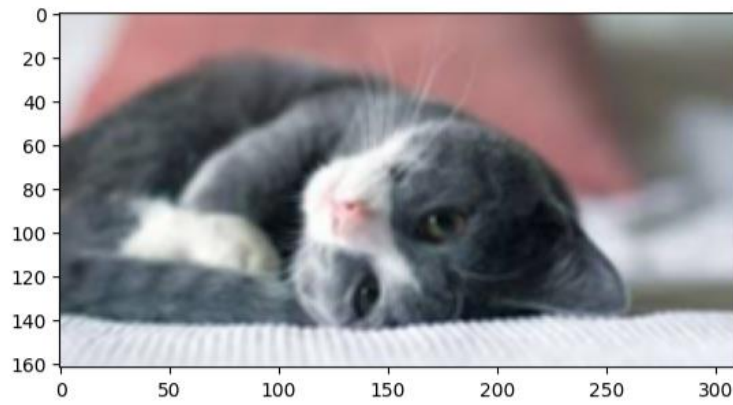
이미지 저장



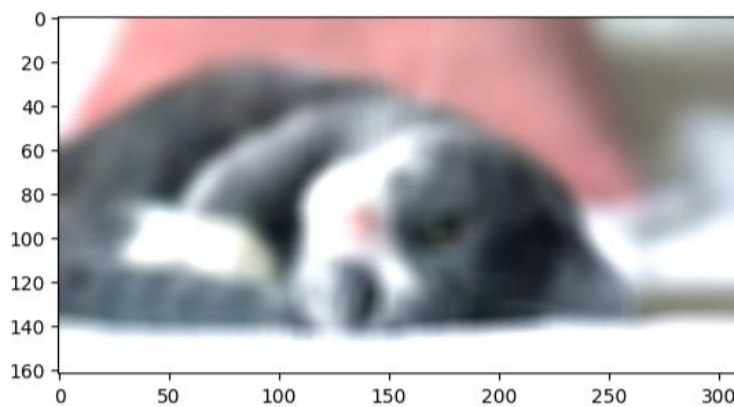
이미지 자르기 - Crop



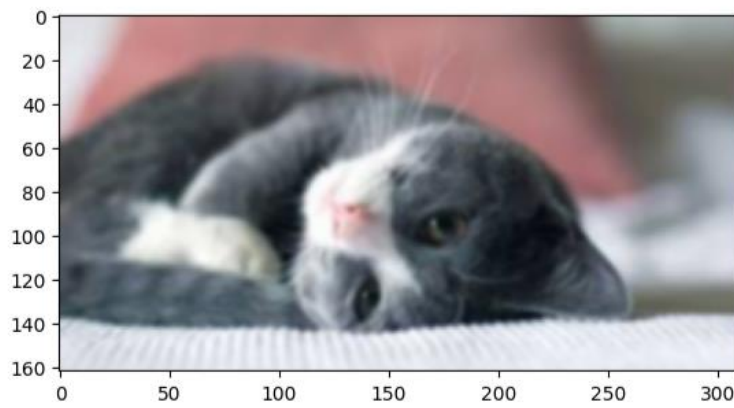
이미지 자르기 - 좌표



이미지 블러 처리



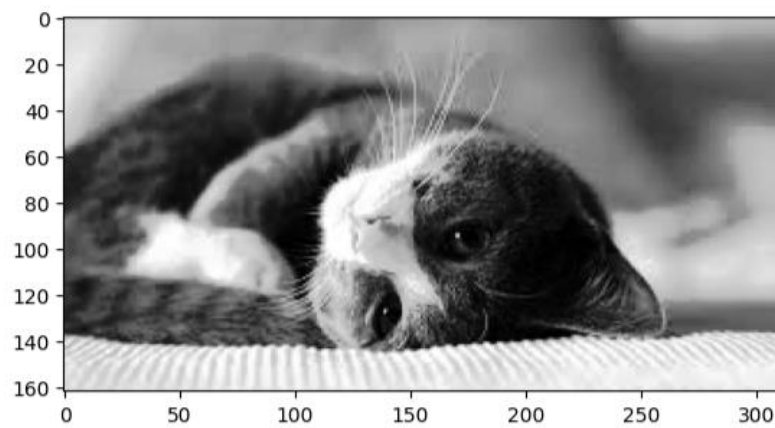
커널 정의 후 filter2D()



가우시안 블러



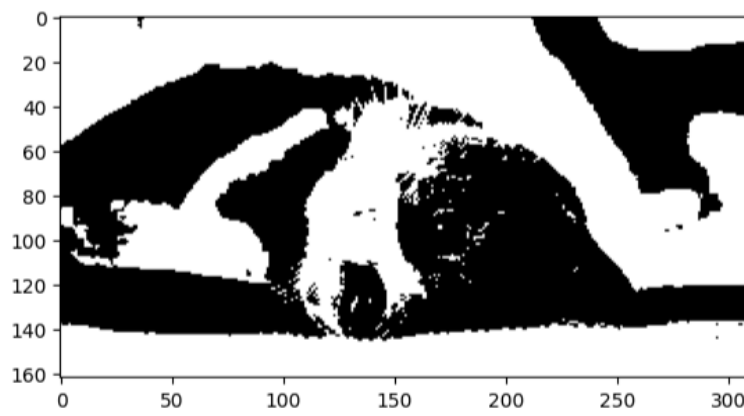
이미지 선명하게 표현



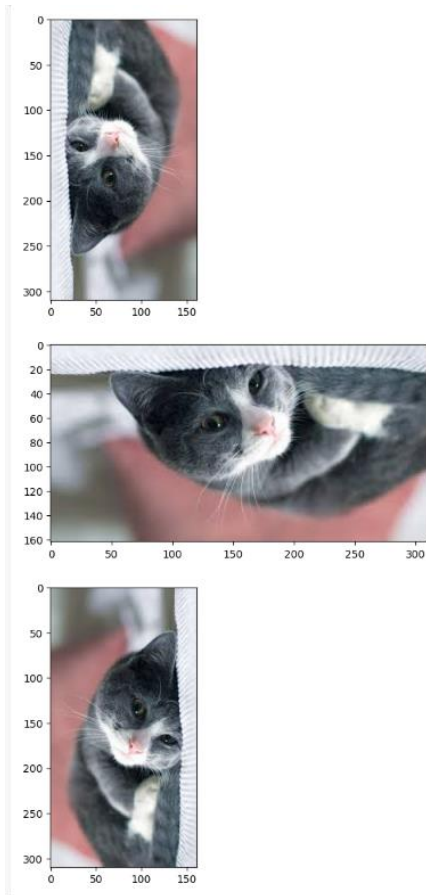
이미지 대비 높이기 1



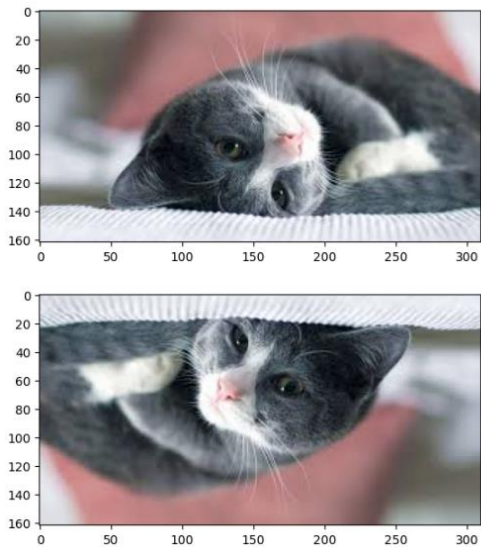
이미지 대비 높이기 2



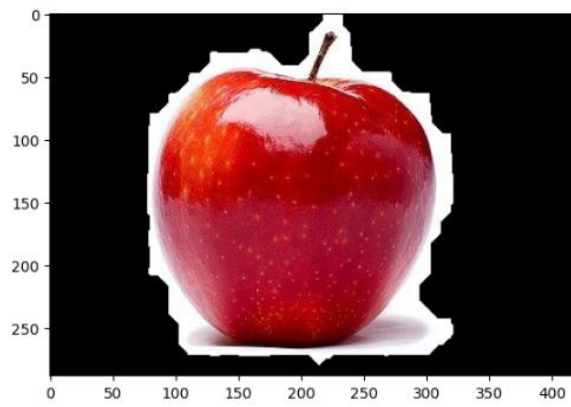
이미지 이진화



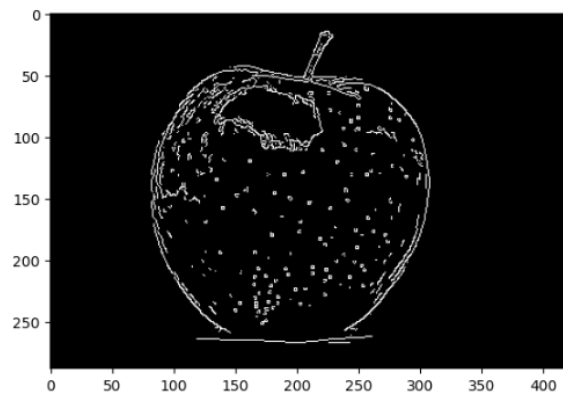
이미지 회전



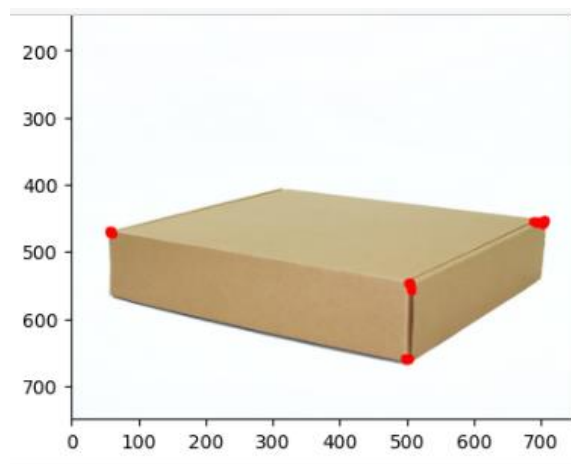
좌우 상하 반전



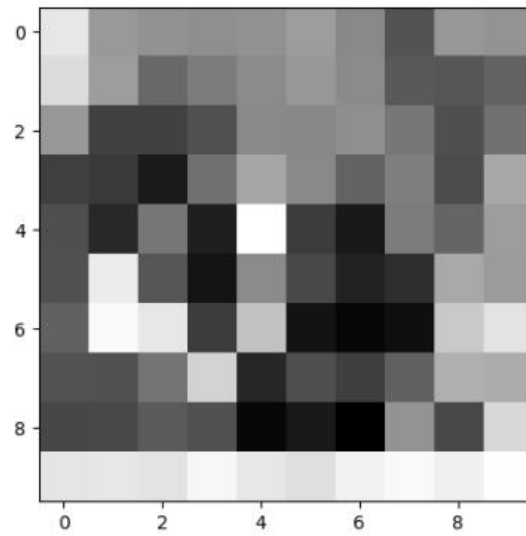
배경 제거



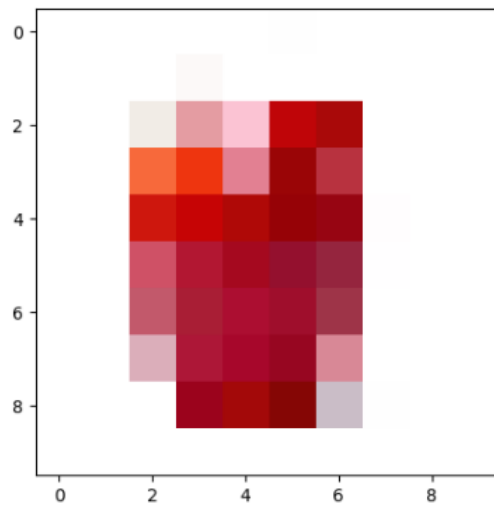
경계선 감지



모서리 감지



러닝 머신 특성 만들기1



러닝 머신 특성 만들기2

```
In [1]: import cv2
import matplotlib.pyplot as plt

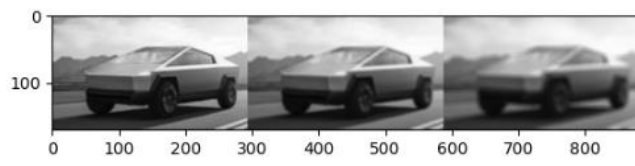
In [3]: image_path = "./data/cat.png"

image = cv2.imread(image_path)
image = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)

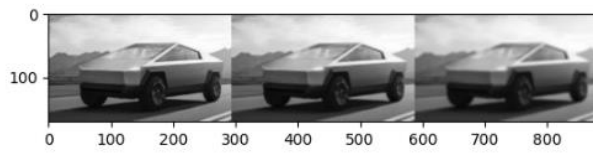
# 평균색 특성 인코딩
channels = cv2.mean(image)
print(channels)
```

(138.98134209478295, 133.2246714456392, 137.49121863799283, 0.0)

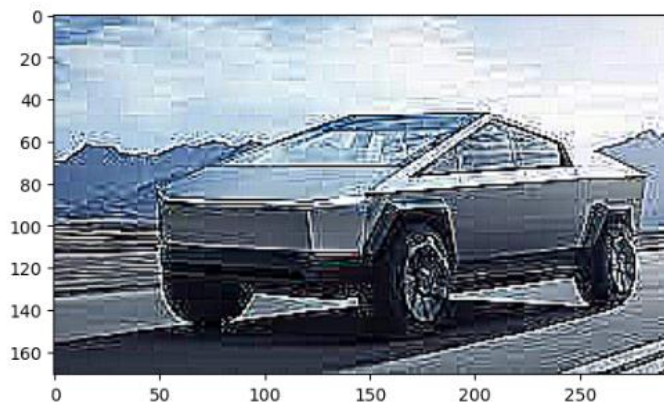
평균 색을 특성으로 인코딩



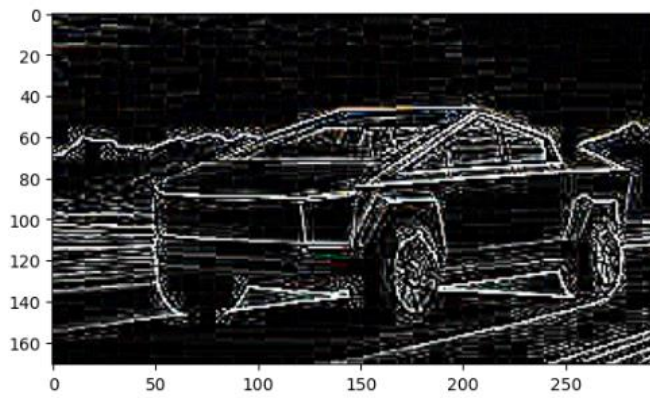
일반 블러 적용



가우시안 블러 적용



선명하게 처리



맥시칸 햇