bitwise

January 31, 2024

[ ]:
```
import cv2 as cv
import numpy as np
```

[ ]:
```
blank = np.zeros((400,400), dtype='uint8')
```

[ ]:
```
rectangle = cv.rectangle(blank.copy(), (30,30), (370,370), 255, thickness=-1)
```

[ ]:
```
circle = cv.circle(blank.copy(), (200,200), 200, 255, thickness=-1)
```

[ ]:
```
cv.imshow('Rectangle', rectangle)
cv.imshow('Circle', circle)
```

Bitwise AND –> returns the intersection of the two images

[ ]:
```
bitwase_and = cv.bitwise_and(rectangle, circle)
cv.imshow('Bitwise AND', bitwase_and)
```

Bitwise OR –> returns the union of the two images

[ ]:
```
bitwase_or = cv.bitwise_or(rectangle, circle)
cv.imshow('Bitwise OR', bitwase_or)
```

Bitwise XOR –> returns the difference of the two images

[ ]:
```
bitwise_xor = cv.bitwise_xor(rectangle, circle)
cv.imshow('Bitwise XOR', bitwise_xor)
```

Bitwise NOT –> returns the inverse of the image

[ ]:
```
bitwise_not = cv.bitwise_not(rectangle)
cv.imshow('Bitwise NOT', bitwise_not)
```

[ ]:
```
cv.waitKey(0)
```