4. Line drawing

4.1. OpenCV line drawing

When using OpenCV to process images, we sometimes need to draw line segments, rectangles, etc. on the image. In OpenCV, use the

cv2.line(dst, pt1, pt2, color, thickness=None, lineType=None, shift=None) function to draw line segments.

Parameter meaning:

dst: output image.

pt1, pt2: required parameters. The coordinate points of the line segment, representing the starting point and the end point respectively

color: required parameter. Used to set the color of the line segment

thickness: optional parameter. Used to set the width of the line segment

lineType: optional parameter. Used to set the type of line segment, optional 8 (8 adjacent connecting lines-default), 4 (4 adjacent connecting lines) and cv2.LINE_AA for anti-aliasing

4.2. Actual effect display

Source code path:

/home/pi/DOGZILLA_Lite_class/4.Open Source CV/C.Image_Processing_Text_Drawing/04_Line_Drawing.ipynb

```
import cv2
import numpy as np
import matplotlib.pyplot as plt

newImageInfo = (600, 600, 3)
dst = np.zeros(newImageInfo,np.uint8)

# line
# 绘制线段 1 dst 2 begin 3 end 4 color. Draw line segment 1 dst 2 begin 3 end 4 color.
cv2.line(dst, (100,100), (450,300), (0,0,255))
# 5 line w
cv2.line(dst, (100,200), (400,200), (0,255,255), 10)
# 6 line type
cv2.line(dst, (100,300), (400,300), (0,255,0), 10, cv2.LINE_AA)

cv2.line(dst, (200,150), (50,250), (25,100,255))
cv2.line(dst, (50,250), (400,380), (25,100,255))
cv2.line(dst, (400,380), (200,150), (25,100,255))
```

```
# cv2.imshow('dst',dst)
# cv2.waitKey(0)
dst = cv2.cvtColor(dst, cv2.COLOR_BGR2RGB)
plt.imshow(dst)
plt.show()
```

04_Line_Drawing.ipynb

Code

```
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# 绘制线段 1 dst 2 begin 3 end 4 color. Draw line segment 1 dst 2 begin 3 end 4 color.
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cv2.line(dst, (100,300), (400,300), (0,255,0), 10, cv2.LINE_AA)

cv2.line(dst, (200,150), (50,250), (25,100,255))
cv2.line(dst, (50,250), (400,380), (25,100,255))
cv2.line(dst, (400,380), (200,150), (25,100,255))

# cv2.imshow('dst',dst)
# cv2.waitKey(0)
dst = cv2.cvtColor(dst, cv2.COLOR_BGR2RGB)
plt.imshow(dst)
plt.show()
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