**opencv: cv2.flip 图像翻转 进行 数据增强**

[Syntax](https://so.csdn.net/so/search?q=Syntax&spm=1001.2101.3001.7020" \t "_blank)

flip(src, flipCode[, dst])

[args](https://so.csdn.net/so/search?q=args&spm=1001.2101.3001.7020" \t "_blank)

| **flipCode** | **Anno** |
| --- | --- |
| 1 | 水平翻转 |
| 0 | 垂直翻转 |
| -1 | 水平垂直翻转 |

**Demo**

Original Image 原图像：  


Flipped Horizontally 水平翻转：  


Flipped Vertically 垂直翻转：  


Flipped Horizontally & Vertically 水平垂直翻转：  


**Code**

# encoding:utf-8

import cv2

image = cv2.imread("girl.jpg")

# Flipped Horizontally 水平翻转

h\_flip = cv2.flip(image, 1)

cv2.imwrite("girl-h.jpg", h\_flip)

# Flipped Vertically 垂直翻转

v\_flip = cv2.flip(image, 0)

cv2.imwrite("girl-v.jpg", v\_flip)

# Flipped Horizontally & Vertically 水平垂直翻转

hv\_flip = cv2.flip(image, -1)

cv2.imwrite("girl-hv.jpg", hv\_flip)

**Appendix**

也可打开 help 功能 具体查看 接口设置：

$ python

Python 3.6.3 |Anaconda, Inc.| (default, Oct 13 2017, 12:02:49)

[GCC 7.2.0] on linux

Type "help", "copyright", "credits" or "license" for more information.

>>> import cv2

>>> help(cv2.flip)

Help on built-in function flip:

flip(...)

flip(src, flipCode[, dst]) -> dst

. @brief Flips a 2D array around vertical, horizontal, or both axes.

.

. The function cv::flip flips the array in one of three different ways (row

. and column indices are 0-based):

. \f[\texttt{dst} \_{ij} =

. \left\{

. \begin{array}{l l}

. \texttt{src} \_{\texttt{src.rows}-i-1,j} & if\; \texttt{flipCode} = 0 \\

. \texttt{src} \_{i, \texttt{src.cols} -j-1} & if\; \texttt{flipCode} > 0 \\

. \texttt{src} \_{ \texttt{src.rows} -i-1, \texttt{src.cols} -j-1} & if\; \texttt{flipCode} < 0 \\

. \end{array}

. \right.\f]

. The example scenarios of using the function are the following:

. \* Vertical flipping of the image (flipCode == 0) to switch between

. top-left and bottom-left image origin. This is a typical operation

. in video processing on Microsoft Windows\\* OS.

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