

cvplus

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Andy Tsang

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`cvplus.color_util.genColors (num, isShuffle=False)`

Generate a list of color in RGB

Args:

num (int): number of color to generate isShuffle (boolean): random shuffle the color or follow hsv sequence

Return:

colors (boolean) - list of color code, in RGB

`cvplus.color_util.hsv2rgb (h, s, v)`

Convert color space from HSV to RGB

Args:

h (float): Hue s (float): Saturation v (float): Value

Return:

- **r** (int) - Red
- **g** (int) - Green
- **b** (int) - Blue

`cvplus.color_util.rgb2hex (r, g, b)`

Convert RGB to color hex

Args:

r (int): Red g (int): Green b (int): Blue

Returns:

hex (string) - Hex color code

`cvplus.cv_util.bbox2location (bbox)`

From bbox [x,y,width,height] to location [top,right,bot,left]

Args:

bbox (list): bounding box [x,y,width,height]

Returns:

location (list) - coordinate [top,right,bot,left]

`cvplus.cv_util.bbox_iou (box1, box2)`

Calculating the IoU of two ht_vision.boundingBox Args:

box1 (ht_vision.BoundingBox): Box 1 box2 (ht_vision.BoundingBox): Box 2

Returns:

- **iou** (float) - Intersect over Union

`cvplus.cv_util.drawDashedLine (image, color, start_pos, end_pos, width=1, dash_length=8)`

Draw dashed line

Args:

image (np.array): image to draw on color (tuple): color code (R,G,B) start_pos (tuple): start coordinate end_pos (tuple): end coordinate width (int): line width dash_length (int): space between dash

`cvplus.cv_util.getTextBoxRatio (text, box_width, font=2, thickness=1)`

Return text box ratio

Args:

text (str): string of text wish to print box_width (int): Width of the background box font (int): cv2 font type thickness (int): string thickness

Returns:

- **text_ratio** (float) - text ratio for opencv
- **nh** (int) - new height

`cvplus.cv_util.interval_overlap (interval_a, interval_b)`

Return the minium coordinate from 2 given interval

Args:

interval_a (list): Interval a interval_b (list): Interval b

Returns:

- **min** (float) - minium coordinate

`cvplus.cv_util.location2bbox (location)`

From location [top,right,bot,left] to bbox [x,y,width,height]

Args:

location (list): coordinate [top,right,bot,left]

Returns:

bbox (list) - bounding box [x,y,width,height]

`cvplus.img_util.CV2PIL (image)`

Convert OpenCV image to PIL.image

Args:

image (numpy.array): return image in PIL image

`cvplus.img_util.PIL2CV (image)`

Convert PIL.image to OpenCV image

Args:

image (numpy.array): return image in numpy array

`cvplus.img_util.base64npa (b64, shape)`

Convert image (string.base64) to numpy array

Args:

b64 (string): image in base64 shape (tuple): shape of the image (h,w,c)

Returns:

- **npa** (numpy.array) - image in numpy array

`cvplus.img_util.distanceOfpoints (dx, dy, isAbs=True)`

Function to get distance between points

Args:

dx (float): change of x-axis dy (float): change of y-axis isAbs (boolean): is getting absolute value

Return:

- **dist** (float) - distance between two points

`cvplus.img_util.getCenterPoint (bbox)`

Function to get the center point of a given bbox (top,right,bot,left)

Args:

bbox (list): coordinate [top,right,bot,left]

Returns:

- **x** (int) - x of center
- **y** (int) - y of center

`cvplus.img_util.getCroppedImage (image, locations, imageSize=128, isWithPadding=False)`

Function take image and bounding boxes return cropped images

Args:

image (numpy.array): image use for cropping (h,w,c) locations (numpy.array): face location information imageSize (int): size of the cropped image isWithPadding (boolean): the cropped image whether with padding

Returns:

- **images** (numpy.array) - array of cropped images (n,h,w,c)

`cvplus.img_util.getDownSampleImage (image, imageSize=320)`

Function take image and down sample to imageSize, while keeping the original ratio

Args:

image (numpy.array): image use for cropping (h,w,c) imageSize (int): target size

Returns:

- **resized_image** (numpy.array) - cropped image (h,w,c)

`cvplus.img_util.normalize (image)`

Basic normalization for image Args:

image (np.array): original image range 0~255

Returns:

- **image** (np.array) - normalized image range 0~1.

`cvplus.img_util.npa2base64 (npa)`

Convert image (numpy.array) to base64

Args:

npa (numpy.array): image in numpy.array

Returns:

b64 (string) - image in base64

Module perform background subtraction to get contours

Object Classes for Bounding Box, DEFAULT takes NON-CORNER parameters All coordinate DEFAULT represent in integer as required by some libraries(Python3+)

THIS OBJECT HAS 2 MODE, INT for exact coordinate and FLOAT for relative position
Human SkeletonModel designed for 2Dimension space

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