

Capturing Images for DL using Python

Goal: test Python notebook as a UI for capturing images

First Test Program:

Test Mouse Click: test capturing right and mouse clicks only. No image capture.

- 1) `destroyAllWindows()` doesn't work with code samples from websearch. The StackOverflow solutions are incorrect. Add `cv2.waitKey(1)` after the `destroyAllWindows()` to get the program to stop.
- 2) Mouse click requires 1 finger w/Macbook trackpad for left mouse click and 2 fingers for right mouse click

```
# simple mouse capture demo on video creating image
#click leftmouse and right mouse button on video window and verify output in output window
```

```
#apple trackpad 1 finger left mouse button
# 2 fingers right mouse button. How is that intuitive?
```

```
import cv2
import numpy as np
```

```
def mouse_capture(event, x, y, flags, param):
    if event==cv2.EVENT_LBUTTONDOWN:
        print 'left mouse button'
    elif event==cv2.EVENT_RBUTTONDOWN:
        print 'right mouse button'
```

```
vc = cv2.VideoCapture('/Users/dc/videodemos/video_mouse.mov')
```

```
ret_code, first_frame = vc.read()
```

```
cv2.namedWindow('show_firstFrame')
cv2.setMouseCallback('show_firstFrame', mouse_capture)
```

```
print first_frame
while True:
    cv2.imshow('show_firstFrame', first_frame)
    waitKey = cv2.waitKey(10000) & 0xFF
    if waitKey == ord('q'):
        break
```

```
cv2.destroyAllWindows()
```

```
cv2.waitKey(1)  
cv2.waitKey(1)  
cv2.waitKey(1)
```

```
print 'done'
```

Second Test Program:

Draw a green bounding box on the video to indicate selection of a static area. This static area can be a tree for example. Does not capture moving objects.