<https://www.quora.com/What-are-the-standard-puzzles-asked-in-programming-interviews/answer/Lalit-Kundu?ref=fb_page>

Sheetal Saraogi(SE there),Jatin Goel(our college) - Referral at Directi

Good projects in OpenCV

<http://www.learnopencv.com/>

Hand Gesture Recognition :

<http://vipulsharma20.blogspot.in/2015/03/gesture-recognition-using-opencv-python.html?m=1>

Getting started with Videos :

<http://docs.opencv.org/3.0-beta/doc/py_tutorials/py_gui/py_video_display/py_video_display.html#display-video>

Capturing Frames from webcam :

<https://codeplasma.com/2012/12/03/getting-webcam-images-with-python-and-opencv-2-for-real-this-time/>

<https://www.learnopencv.com/how-to-find-frame-rate-or-frames-per-second-fps-in-opencv-python-cpp/>

Capturing Frames from videos :

<http://docs.opencv.org/3.0-beta/doc/py_tutorials/py_gui/py_video_display/py_video_display.html>

<http://stackoverflow.com/questions/33523751/getting-specific-frames-from-videocapture-opencv-in-python>

<http://stackoverflow.com/questions/18954889/how-to-process-images-of-a-video-frame-by-frame-in-video-streaming-using-opencv>

Convert image to grayscale :

<http://stackoverflow.com/questions/12201577/how-can-i-convert-an-rgb-image-into-grayscale-in-python>

Gaussian Blur

<http://docs.opencv.org/3.1.0/d4/d13/tutorial_py_filtering.html>

Thresholding

<http://docs.opencv.org/3.2.0/d7/d4d/tutorial_py_thresholding.html>

Draw contours in binary image

<http://docs.opencv.org/3.2.0/d4/d73/tutorial_py_contours_begin.html>

Convex Hull

<http://docs.opencv.org/trunk/dd/d49/tutorial_py_contour_features.html>

Convexity Defects

<http://docs.opencv.org/3.0-beta/doc/py_tutorials/py_imgproc/py_contours/py_contours_more_functions/py_contours_more_functions.html>

Convex Hull and Convexity Detection stackoverflow

<http://stackoverflow.com/questions/30307449/contours-and-convex-hull-in-opencv2-for-a-thresholded-32-uint-image>

Some other things we can do with this :

1. Play stone paper scissors with computer. : Get random from computer by generating random number. Then, tell if you win or lose by gesture recognition.
2. Close and open fist : Change music in audio player.
3. Draw with fingers. When one finger is open, draw with that, else draw with multiple fingers.

The Xvid codec compresses video files to make them smaller. It can compress video at a ratio of 200:1 or more compared to uncompressed video. This makes transmitting the video over a network speedy or saves you a lot of space on your computer's hard disk.

**Errors encountered & Documentation Material :**

<http://stackoverflow.com/questions/35372700/whats-0xff-for-in-cv2-waitkey1>

<http://stackoverflow.com/questions/13834399/cannot-open-mp4-video-files-using-opencv-2-4-3-python-2-7-in-windows-7-machi>

<https://en.wikipedia.org/wiki/Video_codec>

<http://answers.opencv.org/question/29648/attributeerror-module-object-has-no-attribute-videowriter_fourcc/>

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<http://stackoverflow.com/questions/34968722/softmax-function-python>

When you multiply scores by 10, prob get very small or very big.

When you div by 10, all prob get more uniform.