**Hand Gesture Recognition**

Here, I am trying to recognize the simple hand gestures like detecting and counting finger using still images.Tried an simple project while learning OpenCV concepts.

1. **Creating Blurred Image**

First of all ,we will create Blurred image using Gaussian blur to remove noise.And threshold it afterwards to obtain binary mask.

1. **Computing contours and convex hull**

Next,we will find all contours and return the detected contours.Then we will compute the convex hull as well as the convexity defect regions of the hand contour.

1. **Detecting and counting fingers**

Now , will compute convexity defects of hand contours.This will gives the defect regions of contours which describes start point ,an ending point and farthest point (i.e distance between start point and an ending point). The defect regions are returned as an array of vectors.Once we have got the hull points with their defect neighbors, we can simply compute the angle spanned by the two vectorsby applying the law of cosines. Based on the sharpness of the angle we can make a decision.