**Image processing**

Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some useful information from it. It is a type of signal processing in which input is an image and output may be image or characteristics/features associated with that image. Nowadays, image processing is among rapidly growing technologies. It forms core research area within engineering and computer science disciplines too.

Image interpolation occurs when you resize or distort your image from one pixel grid to another. ***Image resizing*** is a type of Image processing and it is necessary when you need to increase or decrease the total number of pixels, whereas remapping can occur when you are correcting for lens distortion or rotating an image.

**Haar Cascades**

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| It is a machine learning based approach where a cascade function is trained from a lot of positive and negative images. It is then used to detect objects in other images.  It uses OpenCV. OpenCV already contains many pre-trained classifiers for face, eyes, smile etc. Those XML files are stored in opencv/data/haarcascades/ folder.  A Haar​ feature considers adjacent rectangular regions at a specific location in a detection window. |  |

**Future Work**

- Running on Mobile application

- Running on hardware device instead of webcam and laptop