***detectMultiScale***

works by sliding window approach. A frame size is chosen and then it is slid across the image. Then the frame is increased and slid again.

scaleFactor – parameter that defines how much the frame is increased each iteration. 1.1 = 10%

minNeighbors – parameter that defines how many neighbors a positively identified frame needs to have to be retained. High value will be very selective while low value will give false positives. Value 3 seems to be perfect

minSize – is the beginning size of the frame to scan with. If chosen a low value such as 30x30, it will find even the tiniest faces on the image, obviously slowing down the program.

***face\_recognition.face\_locations***

returns array of rectangles wherever face is found. It will return multiple rectangles if there are more than one faces on the image, however for training purpose we have to make sure there is only one face per image in our training dataset. This requirement is void when we try to recognize faces.

***face\_recognition.face\_encodings***

returns 128d vectors for each face found on the image.

face\_image – image to find faces on

known\_face\_locations – optional box for face location