**Machine Learning Internship Session 2**

Face and Eye Detection - Coding Sheet

***Python is a case sensitive language and proper indentation should be followed while programming***

```
import cv2
import numpy as np

face_cascade = cv2.CascadeClassifier('haarcascade_frontalface_default.xml')

eye_cascade = cv2.CascadeClassifier('haarcascade_eye.xml')

cap = cv2.VideoCapture(1)
cap.set(3, 640) # set video width
cap.set(4, 480) # set video height
while (1) :
   ret, img = cap.read()



   gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
   faces = face_cascade.detectMultiScale(gray, 1.3, 5)

   for (x,y,w,h) in faces:
      cv2.rectangle(img,(x,y),(x+w,y+h),(255,0,0),2)
      roi_gray = gray[y:y+h, x:x+w]
      roi_color = img[y:y+h, x:x+w]

      eyes = eye_cascade.detectMultiScale(roi_gray)
      for (ex,ey,ew,eh) in eyes:
         cv2.rectangle(roi_color,(ex,ey),(ex+ew,ey+eh),(0,255,0),4)

   cv2.imshow('img',img)
```

```
    k=cv2.waitKey(30)
    if k == ord('q'):
        break

cap.release()
cv2.destroyAllWindows()
```

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