

Guided Projects Artificial Intelligence & Machine Learning

Guided Projects: Supervised Learning

Face Detection

Face detection is a **computer technology** being used in a variety of **applications** that identifies human faces in digital images. Face detection can be regarded as a **specific case** of object-class detection, **which focuses** on the detection of **frontal human faces**. Because faces are so complicated, there isn't a straightforward test that will tell if we found a face or not. Instead, thousands of small patterns and features must be matched for accurate facial detection.

Question:

Implement a face tracking algorithm using haar cascade algorithm and opencv. Using haar cascade, first implement a face detection algorithm that counts the total number of faces present in any given frame. Write the total number of faces detected on the top left of the image. Further modify the code to track the face if only one face is detected. Make sure that you draw the bounding box corresponding to all video frames. Note: you may need to fine tune the parameters for Haar Cascade Classifier to get optimal results and remove false positives.