Image Processing

Project Milestone 2

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FaceNet is the name of the algorithm employed in this technique. A deep learning model called FaceNet was developed using a big dataset of facial photos. The model can be used to compare and extract features from various faces in new face photos. This makes it possible to recognise individuals in pictures.

FaceNet is used by the code in this function to compare and extract features from various faces in face pictures. The people in the photographs are then identified by the software using the findings of the comparisons.

The code is divided into several sections. The first section loads the necessary libraries, including NumPy, OpenCV, Matplotlib and Keras-FaceNet. The second section creates a FaceNet model. The third section defines a function called extract_face(). This function takes an image path as input and returns the face region of the image. The fourth section defines a function called face_db. This function creates a dictionary that maps names to 128-dimensional vectors that represent the faces of the people in the database. The fifth section defines a function called recognize_person(). This function takes a face image as input and returns the name of the person in the image. The sixth section defines a function called process_image(). This function takes an image as input and draws a bounding box around each face in the image. The seventh section calls the process_image() function on a few images of people. The output of the function is a set of images with bounding boxes around the faces and labels that identify the people in the images.