AUTOMATIC ATTENDANCE SYSTEM BY FACE RECOGNITION

By Group
Kunal Krishan Sharma (100938687)
Vandana Patter (100941405)
Sanjay Kumar (100942249)
Princeton (100934567)

OVERVIEW

- **Face recognition** is a step further to face detection. In face detection, we only detect the location of the human face in an image but in face recognition, we make a system that can identify humans.

- It can also be stated as, "Face recognition is a broad challenge of verifying or identifying people in pictures or videos. Big tech giants are still working to make a faster and more accurate face recognition model."
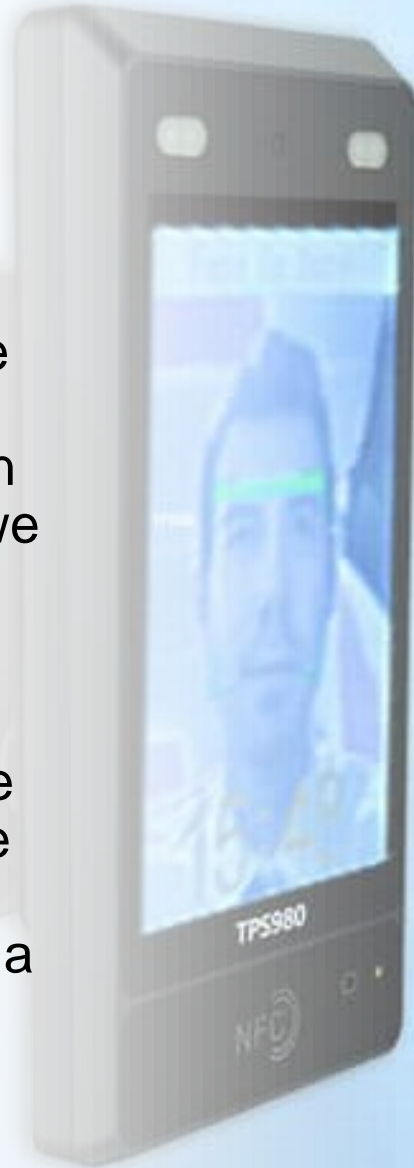
PROJECT STAGES

- **Face Detection:** Locate faces and draw bounding boxes around faces and keep the coordinates of bounding boxes.

- **Face Alignments:** Normalize the faces to be consistent with the training database.

- **Feature Extraction:** Extract features of faces that will be used for training and recognition tasks.

- **Face Recognition**: Matching of the face against one or more known faces in a prepared databasee complicated but getting started doesn't have to be

SYSTEM ARCHITECTURE
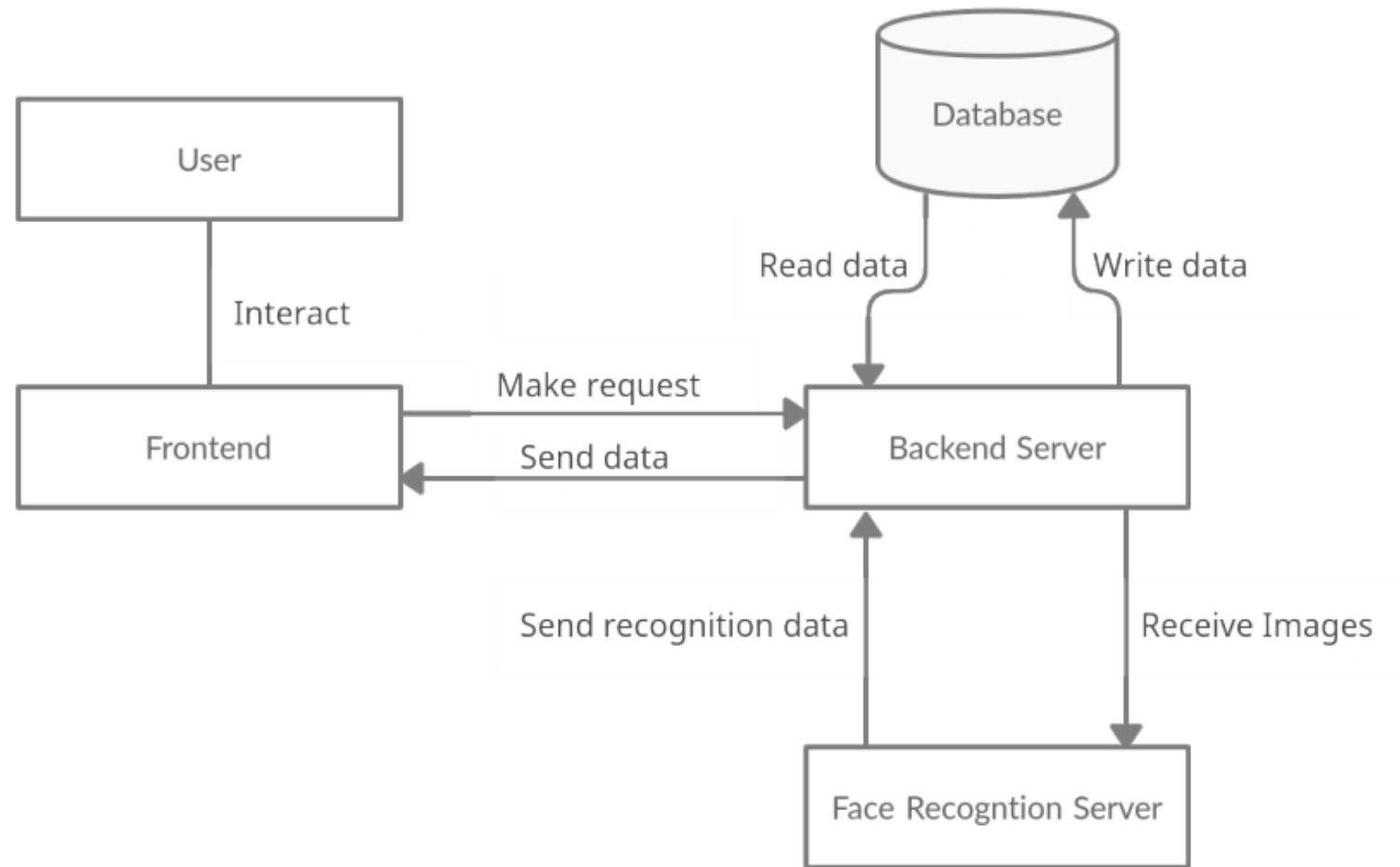
FRONTEND TECHNOLOGY USED

Mobile Device

Webcam

BACKEND TECHNOLOGY USED

PYTHON PROGRAMMING LANGUAGE

POPULAR LIBRARIES SUCH AS OPENCV

FACE **RECOGNITION**

DATABASE

MYSQL

MSEXCEL

AI FEATURES

Face Detection: Use a face detection algorithm/library like OpenCV, Dlib, or MTCNN to locate and extract faces from images or video frames.

Face Recognition: Employ a face recognition library like OpenCV, dlib, or Face_recognition to identify and recognize individual faces from the detected face images.

Machine Learning Models: Train machine learning models, such as support vector machines (SVM) or deep learning models (e.g., Convolutional Neural Networks or CNNs), to improve face recognition accuracy.

THANK YOU