

The technologies used :

Tkinter

HaarCascade Classifier

Histogram Oriental Model(HOG)

Face Recognition

Pymongo

- Tkinter is used to create a GUI based software in order to make it convenient.
- Haar cascade Classifier is one of the oldest face detectors in history, it divides the visible image into features and detects the face in the picture obtained from the camera.
- A HOG is a feature descriptor used for object detection. HOG relies on the property of objects within an image to possess the distribution of intensity gradients or edge directions.

- We use face recognition library to get the encodings of the images we got from the hog modal.
- Fun Fact: A face encoding is a representation of our face using a set of 128 computer measurements.

- We further detect the face from live camera, get the encoding and using compare face library we compare them to the saved encodings and obtain the details of the student.
- We have used pymongo to upload the details to the database directory without making much hassle from the client itself.