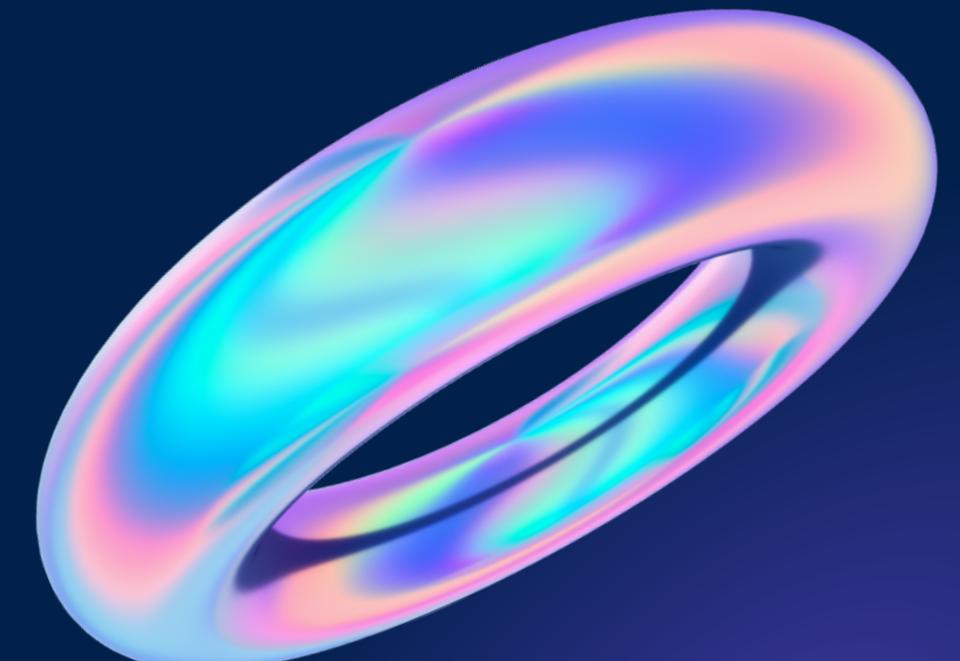
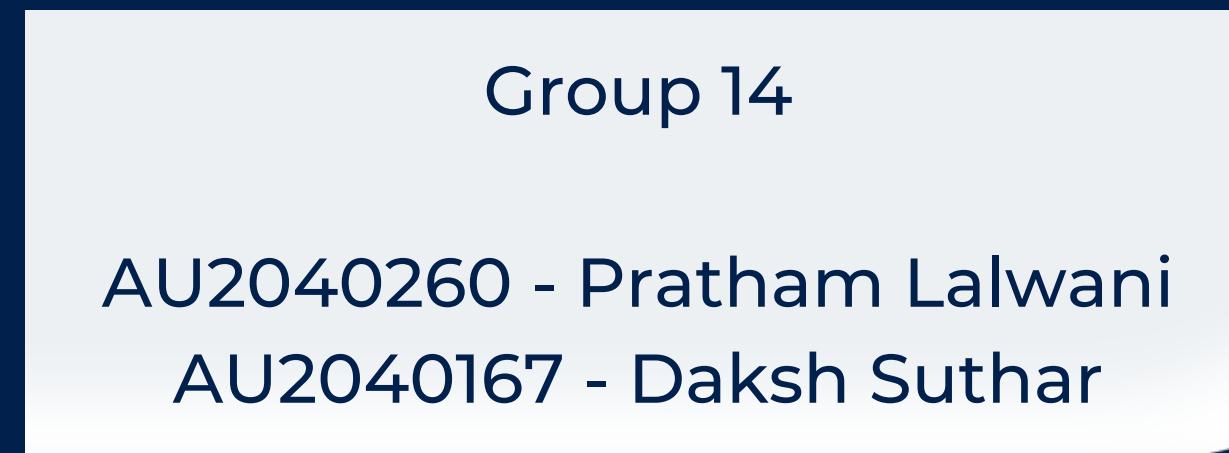
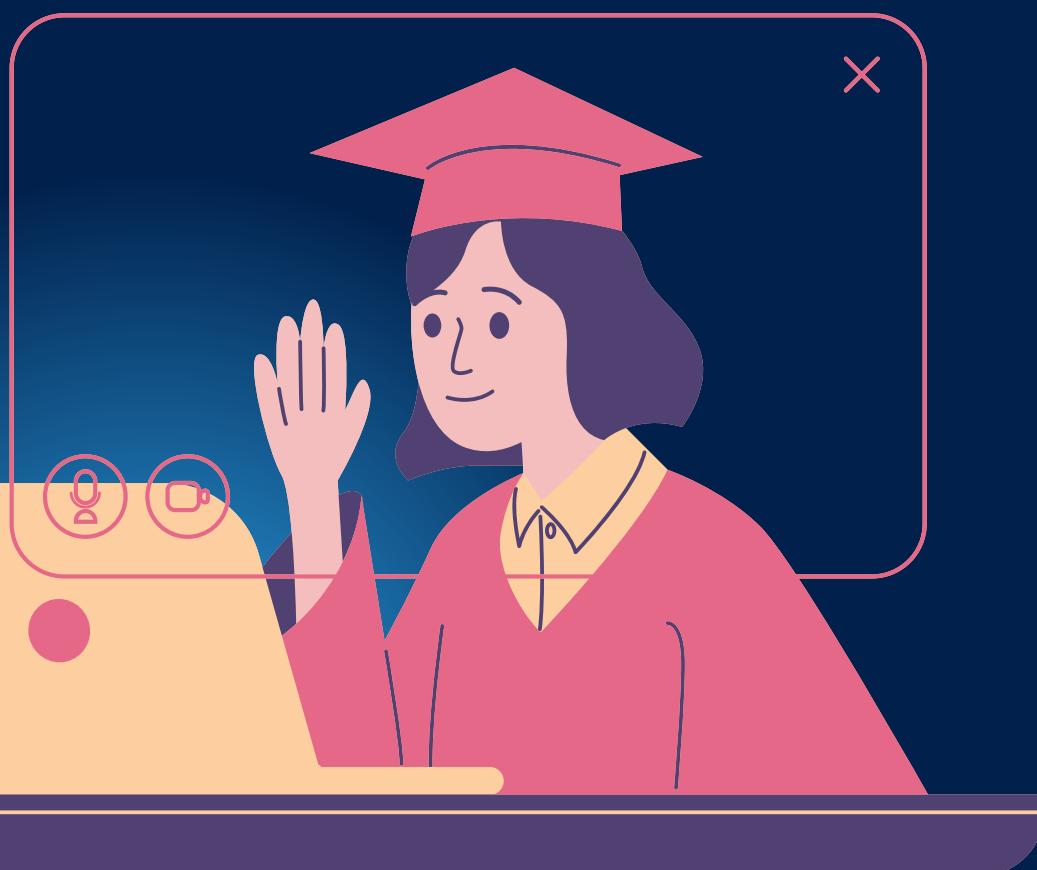


Attendance using Face Recognition System



Introduction and Problem Statement

Attendance management is essential for any organization. Face recognition technology has emerged as a powerful tool for automating attendance management. The haar-cascade and LBPH algorithms for face detection and recognition, a system that can automatically detect and recognize faces in real time.

Existing attendance management systems are inefficient and prone to errors. This project aims to create an efficient, accurate, automated attendance management system using face recognition technology. The system will store attendance data in a database or CSV file and generate reports.



Existing Body of Work

There are several existing attendance management systems available in the market. These systems use techniques such as biometric systems, barcode scanners, and face recognition to track attendance. But, these systems have some limitations, such as cost, complexity, or low accuracy.

The manual procedure for taking attendance from paper-based registers is inefficient and can be easily manipulated. The attendance of large groups of people is not easy to keep track of with the manual system. A more automated and accurate attendance management system is needed.



Approach

The attendance management system approach will use facial technology to identify and track attendees.

The system will be developed using Python programming language and OpenCV library. The system will use haar-cascade and LBPH algorithms for face detection and recognition. The system will automatically detect and recognize faces in real time.

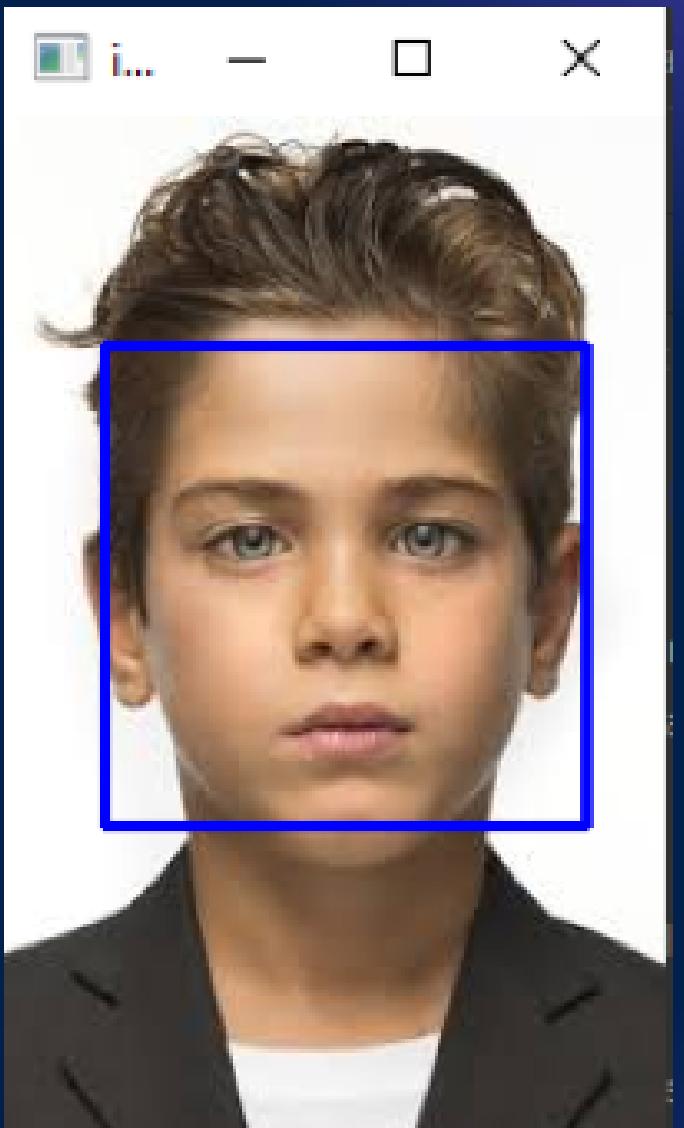
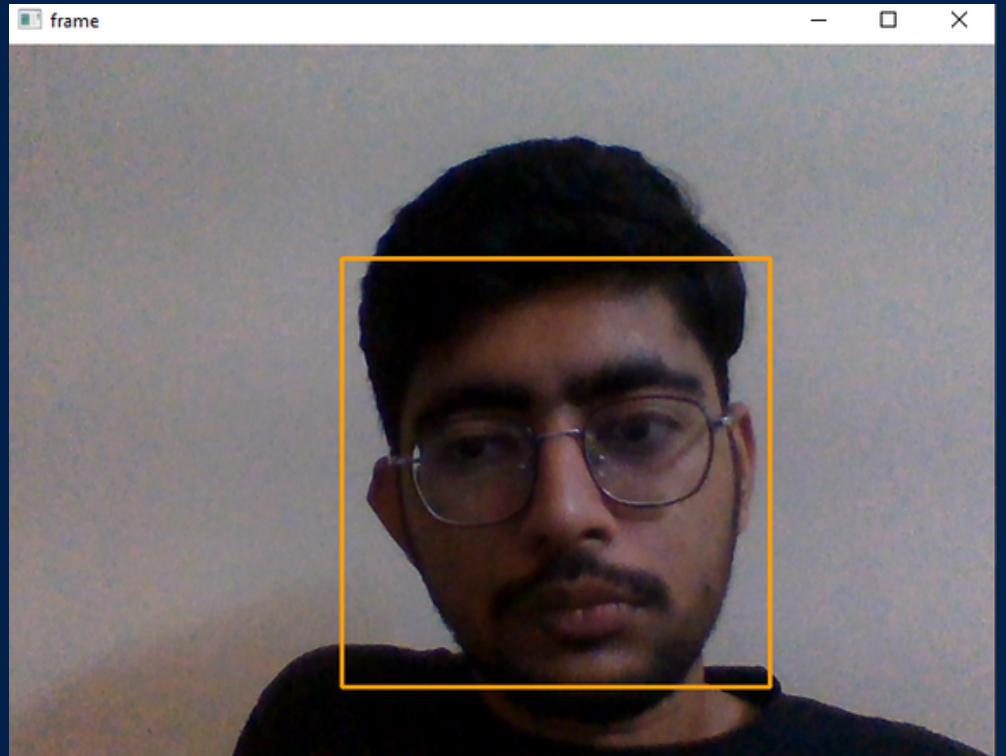
The system will be integrated with a database or CSV file to store attendance data. Reports for analyzing attendance data will also be provided by the system.



Initial results

We have started to learn the Haar cascade algorithm for face detection by using random images and taking pictures from webcams.

From Webcam:



Role of each group member and Future Work

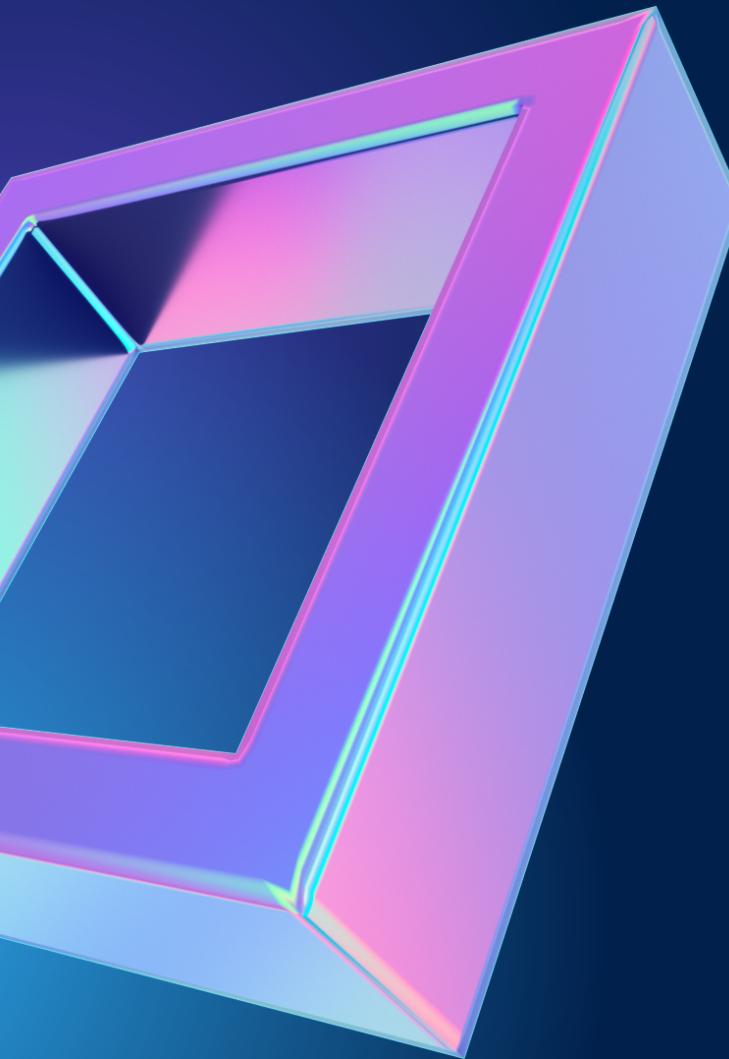
Pratham Lalwani: Pratham looked into the algorithm of Haar Cascade and how we can implement it successfully on the project. He had an integral part in creating a report.

Daksh Suthar: Daksh looked into the LBPH algorithm and how we will be able to use it together with Haar Cascade in the future for continuation. He had an integral part in designing PPT.

Our next step would be integrating the LBPH algorithm for face recognition, as we have successfully implemented the Haar-Cascade algorithm for face detection. It would take extracting the features of your face and comparing them with pre-defined characteristics in the database to mark attendance.



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Thank You