

CAREER POINT UNIVERSITY

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INTRODUCTION



The Face Recognition with Real Time Database project is a system that uses facial recognition technology to verify and authenticate a person's identity in real-time.



The system captures an image of a person's face and compares it to a database of stored faces to determine whether the person is authorized to access a secure area/resource.



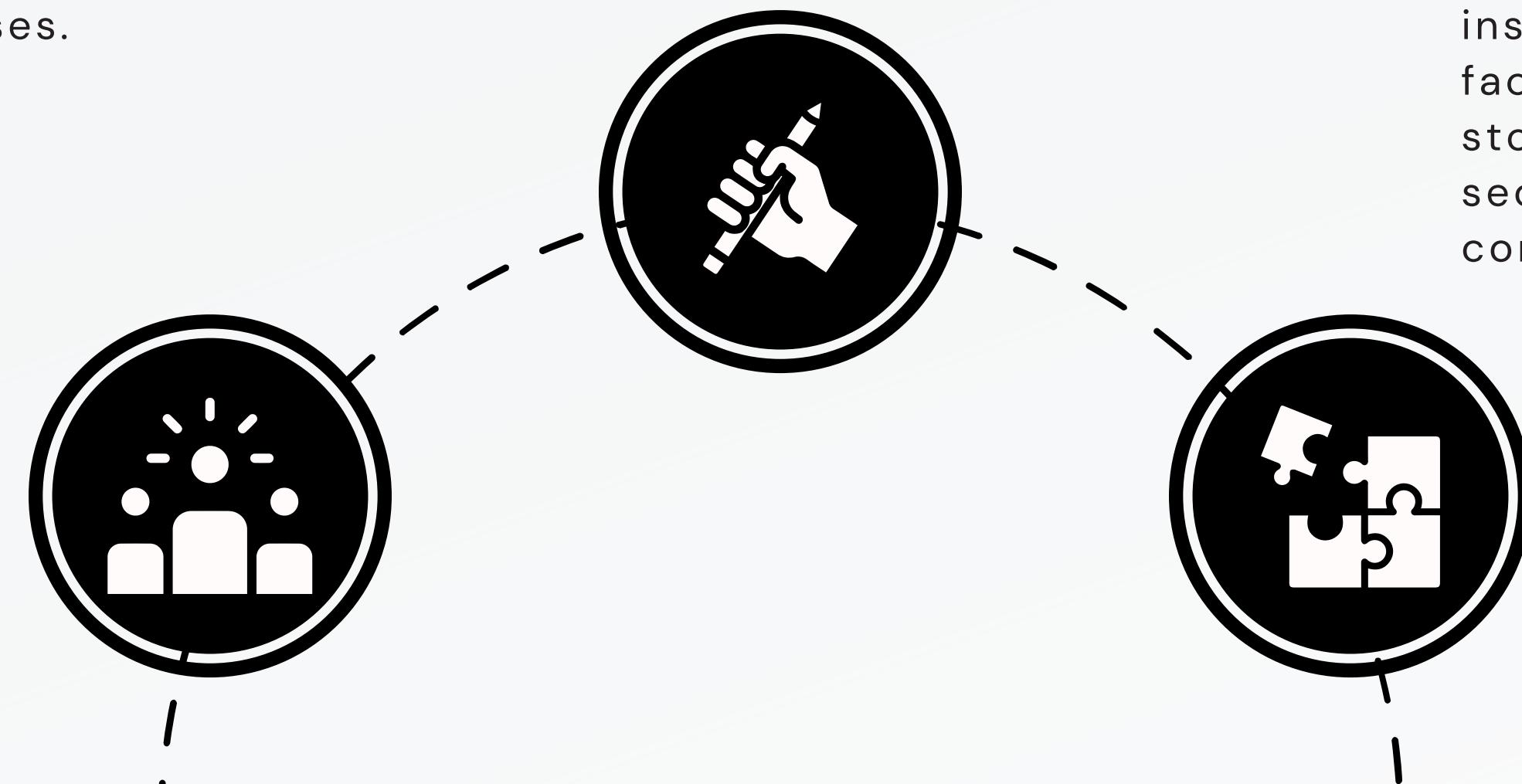
DESCRIPTION

Point n° 1

The development of this project requires expertise in Python, and integration with real-time databases.

Point n° 2

It is used to authenticate and verify the identity of individuals in real-time and determine whether the person is permitted to access a secure area or resource.



Point n° 3

This project can be applied in various settings, such as airports, financial institutions, healthcare facilities, and retail stores, to enhance security and access control.

TECH STACK

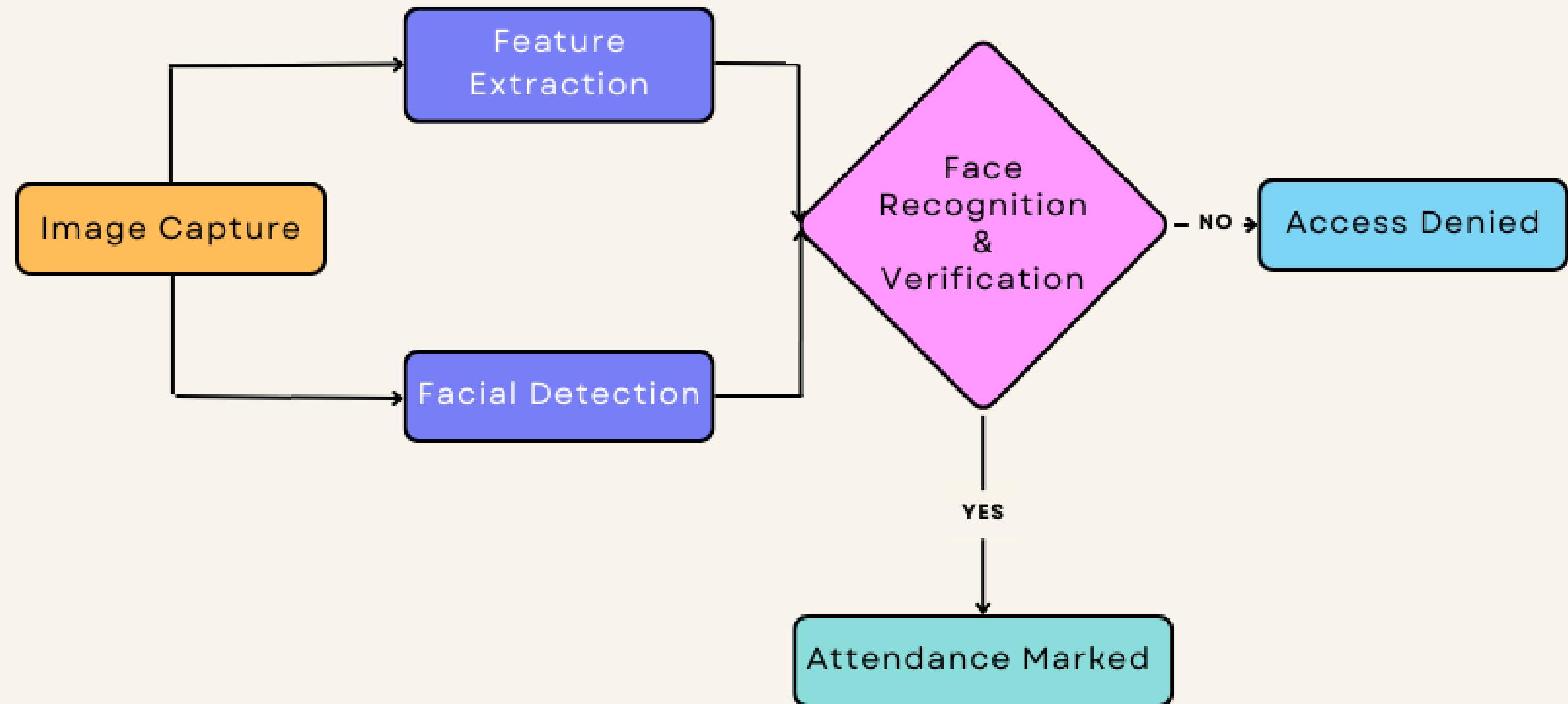


- Python: Python is a popular programming language for machine learning and computer vision tasks. It has a variety of libraries and frameworks that can be used for face recognition, such as OpenCV, Dlib, and Face recognition.
- HTML/CSS: HTML and CSS are markup languages that can be used to create the visual elements of the user interface, such as forms, buttons, and images.

- Real-Time Database Integration: Depending on the real-time database technology used, you may need to use additional programming languages such as JavaScript or Java.
- JavaScript: JavaScript is a programming language that can be used to create the user interface of the application, such as web-based interfaces, alert messages, and other interactive elements.

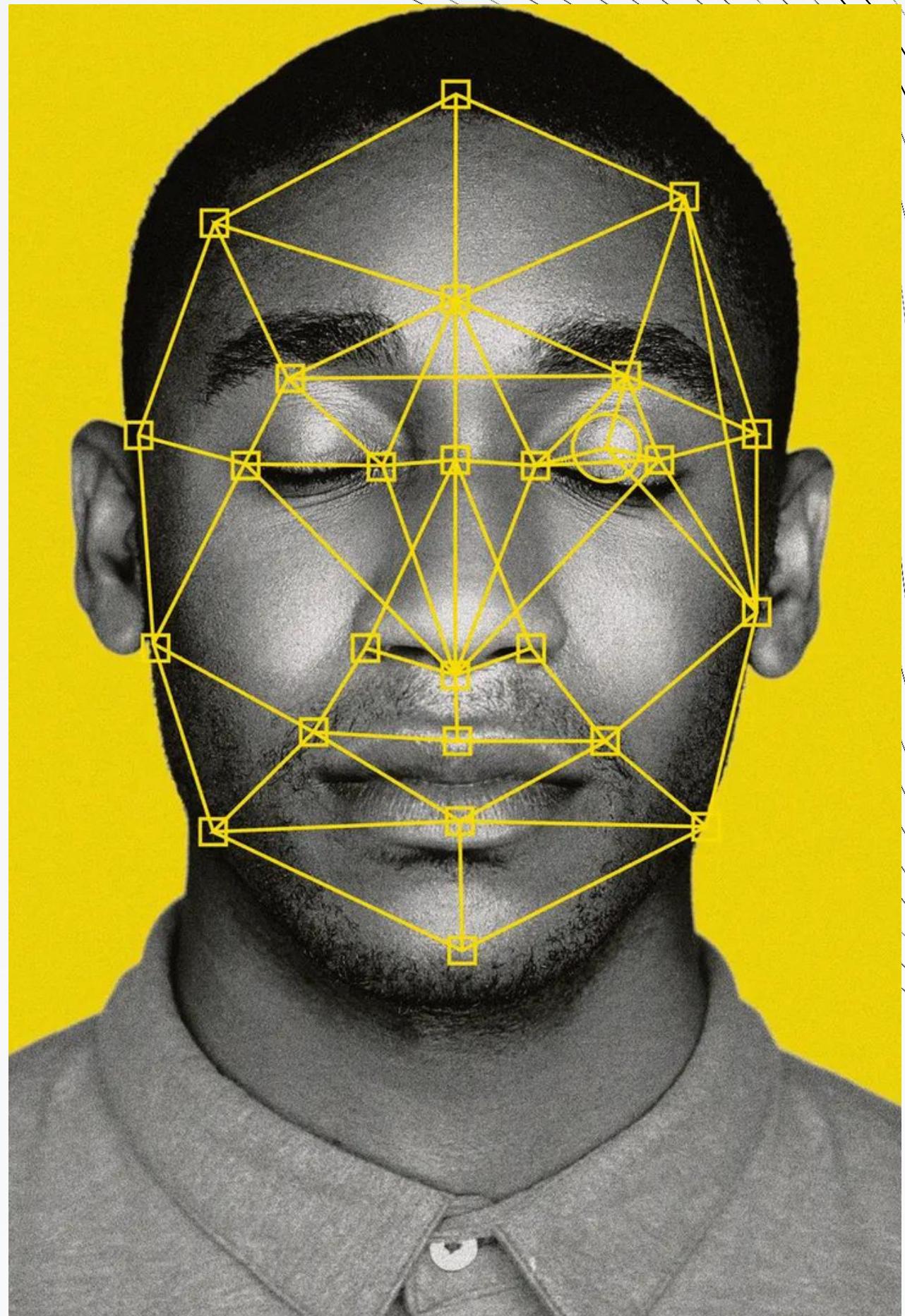


DESIGN



FEATURES

- **Facial Recognition:** The system uses facial recognition technology to capture an image of a person's face and compare it with a stored database of authorized individuals to determine whether they are permitted to access a secure area or resource.
- **Scalability:** The system is scalable and can be implemented in various settings, from small organizations to large-scale operations.
- **High Accuracy:** The system has a high level of accuracy, with the ability to recognize individuals even in varying lighting conditions, angles, and other factors that may affect image quality.
- **Security:** The system enhances security and access control by preventing unauthorized individuals from accessing secure areas or resources, thereby improving overall security.



FUTURE SCOPE

The system can be enhanced with advanced security measures, such as multi-factor authentication, facial recognition with 3D depth sensing, and biometric verification, to provide a higher level of security.

The system can be improved by incorporating artificial intelligence and machine learning algorithms.

The system can be customized and tailored to meet the specific needs and requirements of different organizations, such as healthcare, banking, and education sectors.

REFERENCES

- <https://youtu.be/iBomaK2ARyl>
- https://github.com/ageitgey/face_recognition
- <https://datagen.tech/guides/face-recognition/face-recognition-with-python/>

