

FACE RECOGNITION SYSTEM

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INTRODUCTION

- What is a face recognition system?
- *Advantages*
 - Convenient
 - Non-invasive
 - Security
- *Disadvantages*
 - Privacy Issues
 - Accuracy and bias
 - Ownership

M E T H O D O L O G Y

Steps involved in face recognition task:

- *Face Detection:* Locate faces in an image.
- *Face Analysis:* Detect distinct features.
- *Face Encoding:* Convert image to an array.
- *Face Match:* Compare face with the known data.
- *Output:* Return Identity if available, otherwise return unknown.

IMPLEMENTATION

Steps involved in implementing face recognition system:

- Collect data: Images
- Encode faces in dataset
- Load database
- Take input data
- Match Faces with known data
- Output

STREAMLIT APPLICATION

The app contains following tabs:

- About
- Upload Image
- Face Recognition

Menu

- ☐ About
- ☐ Upload Image
- ☒ Face Recognition

Face Recognition App

Welcome to the Face Recognition App 👤

This is a face recognition app.

The sidebar menu contains two options: upload image and face recognition.

Upload image allows you to add a photo image to the database from your computer or webcam.

Face recognition allows you to upload any image from your browser or take a photo from webcam and returns the name of the recognized faces if available in the database.

Have Fun! 🎉

CONCLUSION

- Tricky to use.
- Advanced computational setup for efficient performance.
- Large database will add nuance to the system.
- Can be improved using deep learning.
- System should be used with diligence.
- Policies regarding data usage should be made public.