



Cairo University Faculty of Engineering

Image Processing and Computer Vision Project Proposal Team #7

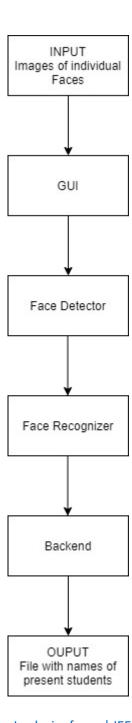
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Project Ideas

1) Attendance tracker

- <u>Description:</u>
 - Automate the process of taking attendance in college through face detection and recognition of the students enrolled in a certain course
- Need:
 - o Facilitate the process of taking attendance and save time during lectures
- Input:
 - o Images of individual faces
 - Enrolled students and their images
- <u>Output:</u>
 - o Register the attendance directly to the system (names of present students)
- Modules:
 - o GUI for the input (Mobile/web/desktop application, Flutter/React.js/C#/Python)
 - Backend for storing the pairings of student images with their names/IDs (.NET/node.js)
 - Face detector (python)
 - Face recognizer (python)

- Block Diagram:



Scientific Papers:

- o Face recognition using Laplacianfaces | IEEE Journals & Magazine | IEEE Xplore
- o <u>Human face detection in a complex background ScienceDirect</u>
- o Face Recognition Using Fisherface Method IOPscience
- o <u>Face recognition using eigenfaces Computer Vision and Pattern Recognition, 1991.</u> <u>Proceedings CVPR '91., IEEE Computer Society Confer (ufpe.br)</u>
- o Face Detection: A Survey ScienceDirect