

C23 - Project F.R.A.M.E (Facial Recognition Attendance Monitoring Engine)

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Project description

Attendance is one of the key factors that predicts success of an individual student on any given course. However, it can often be difficult to keep an accurate track of students in attendance without taking time from the lecturers day to hand out paper, wait for all students to sign next to their name, assuming they're honest about it, and register that into the university attendance system. This process is wasteful both in time and paper, as well as having large room for inaccuracies.

The goal of Project F.R.A.M.E. is to take this workload off of the lecturers' hands and fully automate the process. This will be achieved through the use of facial recognition techniques and back-end systems development in both Python and MySQL. These systems will interface with one another to provide lecturers with detailed and accurate reports of who attended which event and when they attended it.

Results

As a team, we made sure each of us was at the same level technically in terms of ability to program in both Python 3.5 and MySQL. This was achieved through use of online resources such as Educative, Lecture recordings from our prior year doing software development, and other packages from the GitHub student bundle. We also organised ourselves using the online tool Trello for keeping an accurate track of our current project pipeline and used GitHub as our primary form of file transfer and storage.

At this point in time, we have implemented a very basic prototype level of functionality including the cameras ability to track faces on show with good accuracy and have made some further progress in interfacing between a local python program and a back-end AWS (Amazon Web Services) cloud storage. We've also managed to outline some areas of potential future developments which could be added on to the existing project.