Project Name: Intruder Recognition

Tagline:

Building a robust system that identifies and records when an intruder enters a room.

The problem it solves:

In our country, we have heard and seen many cases where an unauthorized person(broker) easily enters a room in a government office where sensitive information of citizens are stored. The work that is to be done by a government official is rather done by that broker in a few minutes provided that he/she is given some bribe. For example, in government offices like Land Management and in the Transport Management office, we highly see the above mentioned problem. So, we decided to solve this problem by building an AI model that recognizes and stores the frame of the video when an intruder enters the room. The CIAA officials can regularly check if any intruder has been detected in a government office, and if detected, necessary action could be taken against the office. This ensures reliable service delivery to a normal citizen. (P.S: This system can be implemented in any organization that wants to prevent intrusion)

Challenges we ran into:

The baseline model that we built was not giving a better accuracy. Moreover, it was capable of detecting known faces , but failed when an unknown face appeared. Similarly, when a new employee needs to be added to the known faces list, the model needs to be trained from scratch which is computationally very expensive.

Technology Used:

DeepLearning, openCV, streamlit, OpenFace, OneShot Learning