

You are working for a company ABC which has decided to automate the attendance capturing system using only the picture of the employee (selfie). However, ABC company only has one or two passport size photographs of their employees in the system for reference.

Your task is to design this image based attendance capturing system using any machine learning or computer vision approach. The system has to match an employee's selfie with the passport size photograph and output either its a match or no match.

You have been provided with the training data (attachment). Make sure to include your own selfies and passport size picture in the training data. Note that the images with 'script' in their name are the passport size images or reference images which are present in the company's system.

Note that the type of architecture or use of pretrained models or selection of python libraries are absolutely as per your decision. Also for training purposes or image processing purposes, you are open to use any additional data source.

**Deliverables:**

1. Ipython notebook with all the analysis and training code
2. The trained model file
3. Python script that takes 2 images as input arguments (one selfie, one passport size picture) and gives the output as match or no match along with the confidence score
4. Submit all other files necessary for executing the above script

**Evaluation metric:**

Your solution would be evaluated on the hidden test data in terms of;

1. Accuracy for positive matches, negative matches and overall performance (weightage 70%)
2. Code quality (10%)
3. Processing time (10%)
4. Any innovative approach (10%)