Project Proposal

Face Detection & Recognition in Image and video

Submitted to the
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Submitted To

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Abstract

Face recognition from image or video is a popular topic in biometrics field of study. Many public places usually have **surveillance** cameras for video capture and these cameras have their significant value for security purpose. It is widely acknowledged that the face recognition has played an important role in **surveillance** system as it doesn't need the object's cooperation. Our objective is Face detection and recognition & label faces is the basis of all the face processing system, while in video as well as in images the face detection problem is a big problem. By studying the face detection by Adaboost algorithm or cascade, this system provides a fast and better robust face detection and recognize method. Our System work firstly face detection phase that specify where face located in image or in video then pre-processing occur in which histogram etc. exists than in next phase face will be recognize that is it really face or not.
Our system will provide some benefit to industry:

- Security will be increase
- Crime rate will be low
- Suspicious person will be detecting by face

Background and Justification

Computer Vision is very new area of research is currently hanging/occur in the computer science under field. It mainly wants to solve the big problem is to build an intelligent system(AI), extracted from the images useful information. We could simply, the ultimate purpose of computer vision is to create such as like humans can be made for the image the wisdom of response and identification system that will be used in industry for solve the problem faced in daily life. In biometric searches or approaches, human faces are separate/unique objects like person fingerprints, iris which widely used in security issues. Many types of personal authentication system have been developed related this which takes advantage of unique and special characteristics. The system can be searched effectively to screen out useful information (**face**) from video/videos media or photos from internet. For example, video surveillance in United Kingdom(UK), there is one CCTV cameras for every 13 to 14 people. They also need to analyze all these video, which use face detection to extract any useful information & store it for future use. Human faces are **non-rigid** objects and appeared in different scale, pose, angle and facial expression. These faces always have variation for example, glasses on eyes. In more, the images have different brightness and contrast as well as contour. These are challenge of face detection and recognition.

Project Methodology

We will develop the purposed system by using different method and best algorithm that are used for face detection and recognition. We will also care about image color mapping, image texture and image contrast and contour of face image in the picture and in motion videos. User will enter or input image or video to system then system will detect face in image that where face is located in image or video and recognize that face.

Project Scope

Our System will provide the facilities that are: pre-processing in which include enhance the quality of face in image for detection and secondly provide face detection where face is located in image and then system recognize that face in image.

Our system will provide some functionalities that are:

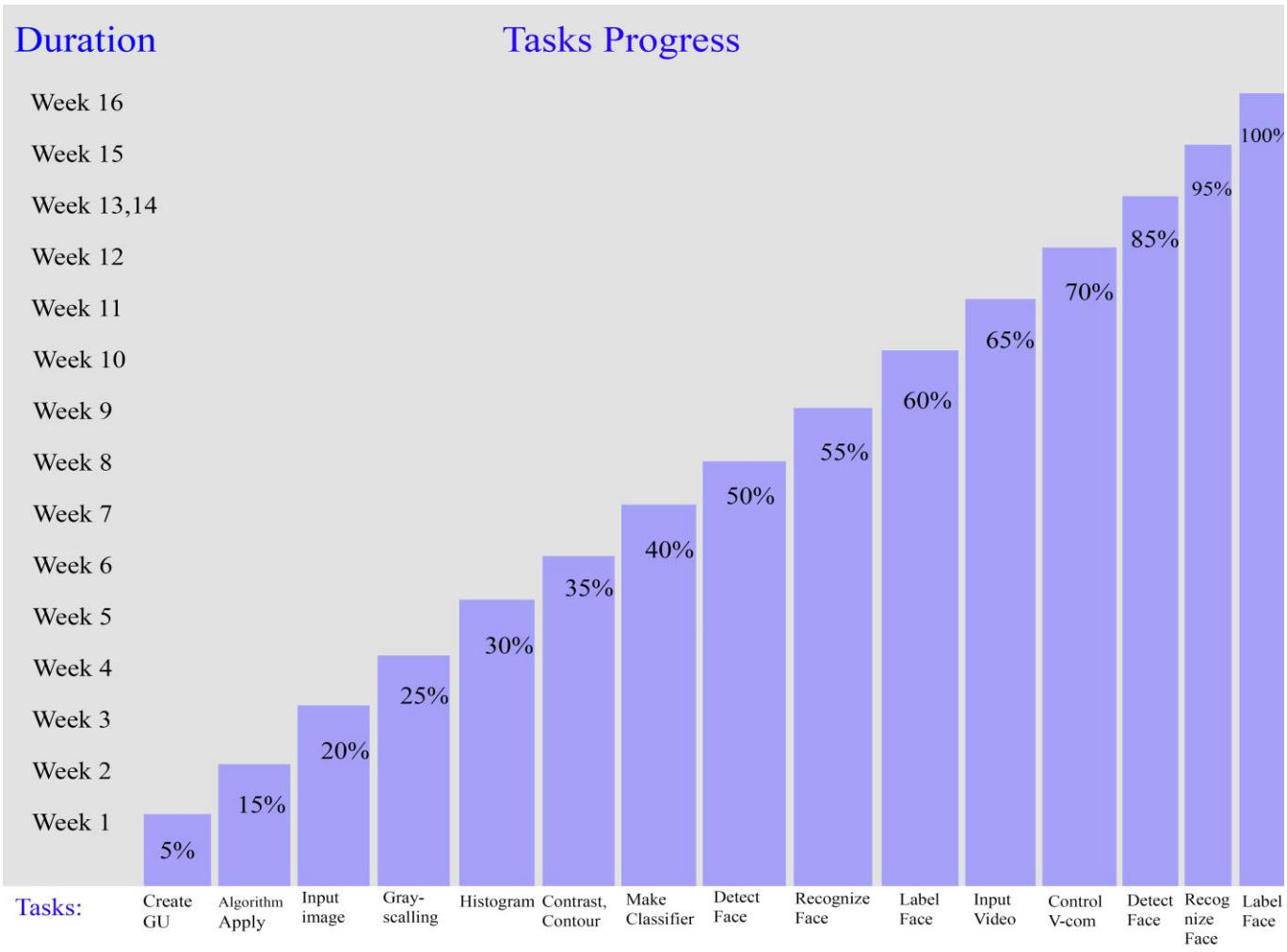
- Input image and video from user
- Identify face in image and video
- Recognize face in image and video
- Label face in image and video

Our system will not provide some functions or functionalities that are not part of our system to perform:

- Illumination conditions
- Pose orientation
- Facial expression
- Occlusion

High level Project Plan

The high level activity / tasks plan is complete and time duration in which each individual task will be implement with the progress ratio:



References

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3- Kinjal A Joshi, Darshak G, Thakore, "A survey on moving object detection and tracking in video surveillance system", International Journal of Soft Computing and Engineering Vol. 2