**Face Recognition for Occluded Faces**

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**Abstract**

Face recognition for occluded faces is considered to be one of the most challenging tasks, but unfortunately, this challenge has not been mentioned a lot because of the other face recognition challenges which have raised the attention of many researchers in this field worldwide, such as variant face expressions and different poses. However, in this proposal, these common challenges can be overcome by having a reasonable amount of dataset of thousands of identities along with their different facial poses, illuminations, and occlusions that can be efficiently trained via machine learning by using MTCNN (Multi-Task Cascaded Convolutional Neural Networks), which has the ability of accurately extracting facial features from images in the loaded dataset. The dataset has been gathered from many different websites and organizations to make the program more efficient in identifying peoples’ occluded faces. Also, this program contains the feature of identifying peoples’ faces via a digital camera where people can be recognized and successfully predicted based on the sufficiently loaded number of datasets in the program. In addition, Support Vector Classification (SVC) has been used in the modeling stage during the training process to increase the prediction probability of peoples’ identities. The training accuracy has reached 99.50%; while the testing accuracy has reached 94%.

**Key Words:** Face Recognition, MTCNN, FaceNet, and SVC.