Abstract

There have been many recent advancements in the field of artificial intelligence and machine learning. Nevertheless, the problem of learning from a few examples persists. The process of learning from just an example is easy for humans but not for a computer. Learning from a small number of samples is especially necessary in the case of facial recognition systems as the number of samples per person is limited.

The aim is to explore, analyze and improve the different techniques which can be used for Face Recognition where the algorithm is fed with a few examples of faces i.e. the process of k shot learning for Face Recognition has been explored using the LFW and FEI datasets. The techniques of transfer learning have been used along with the famous Dlib library with some improvements using methods of deep learning.

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**Index Terms**

Computer Science

Image Processing

**Keywords**
k-shot Learning, resnet, Dlib, skip connections