

Facial Recognition With Makeup

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Work In Progress

Abstract

Advanced algorithms like HyperFace are capable of performing accurate facial recognition (Chellappa et. al., 2016). A notable shortcoming of such algorithms is recognizing a person both when wearing makeup and when not. Since no large database of faces with and without makeup exists, it is difficult to train neural networks to distinguish between the two and recognize that the same subject is present in both cases. This article demonstrates how a bottlenecked version of the vgg16 neural network trained on a database of Instagram photos can determine with high accuracy whether a person is wearing makeup or not (Zisserman et. al., 2014). Furthermore, a CNN is proposed for performing high accuracy facial recognition on subjects both with and without makeup.