Our goal is to determine the presence or absence of makeup in facial images by image recognition techniques. Considering this as a classification problem, we solve it utilizing Convolutional Neural Networks (CNNs), with a dataset consisting of facial images of women both before and after makeup.

Current Methods:

Several works have studied automatic makeup detection. A widely-used classifier is Support Vector Machine (SVM), which searches for a linear boundary that maximizes the margin between two classes of patterns [1-3]. Another method in [2] uses Adaptive Boosting (Adaboost) to provide an approximate location and scale of the face in the input image, with the principle of combining multiple weak classifiers to form a single strong classifier. In addition, a locality-constrained low-rank dictionary learning algorithm is proposed in [4] taking into account the intrinsic local information of makeup.

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[4] Shuyang Wang and Yun Fu. 2016. Face behind makeup. In Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence (AAAI'16). AAAI Press 58-64.