Face Recognition across Non-Uniform Motion Blur, Illumination, and Pose

SUPPLEMENTARY MATERIAL

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A.1. Supplementary evaluations on LFW

As mentioned in the main manuscript, the images in LFW do not have much blur. To demonstrate the efficacy of MOBILAP in modeling blur even on a challenging real dataset such as LFW, we perform the following experiment. We continue to adhere to the 'Unsupervised' paradigm and evaluate our results on the 6000 image pairs in 'View 2' as per LFW protocol, but with one important difference - in this experiment, we blur the first image in each pair synthetically according to blur Setting 1 (as discussed in Section III-C of the main paper). Note that our blur settings are carefully chosen to correspond to realistic blur scenarios. We perform the face verification task as before (see Section V-C of the main paper) using MOBILAP. It is encouraging to note that, MOBILAP, under this setting, returned an AUC value of 0.8376 which is only marginally lower than the value of 0.8410 (see Table VIII of the main paper) obtained on the original dataset without any blur. The corresponding ROC curve (in red) is shown in the plot of Fig. A.1. MOBILAP's ROC curve for the 'no blur' case (see the plot in Fig. 11 of the main paper) has been reproduced here (in blue) for comparison. We could not compare performance with [42] as the code is not available, whereas the code of [40] has been patented by its authors. It must nevertheless be mentioned that these competing methods are not tailored to deal with blur. This experiment is yet another demonstration of how our work advances the state-of-the-art.

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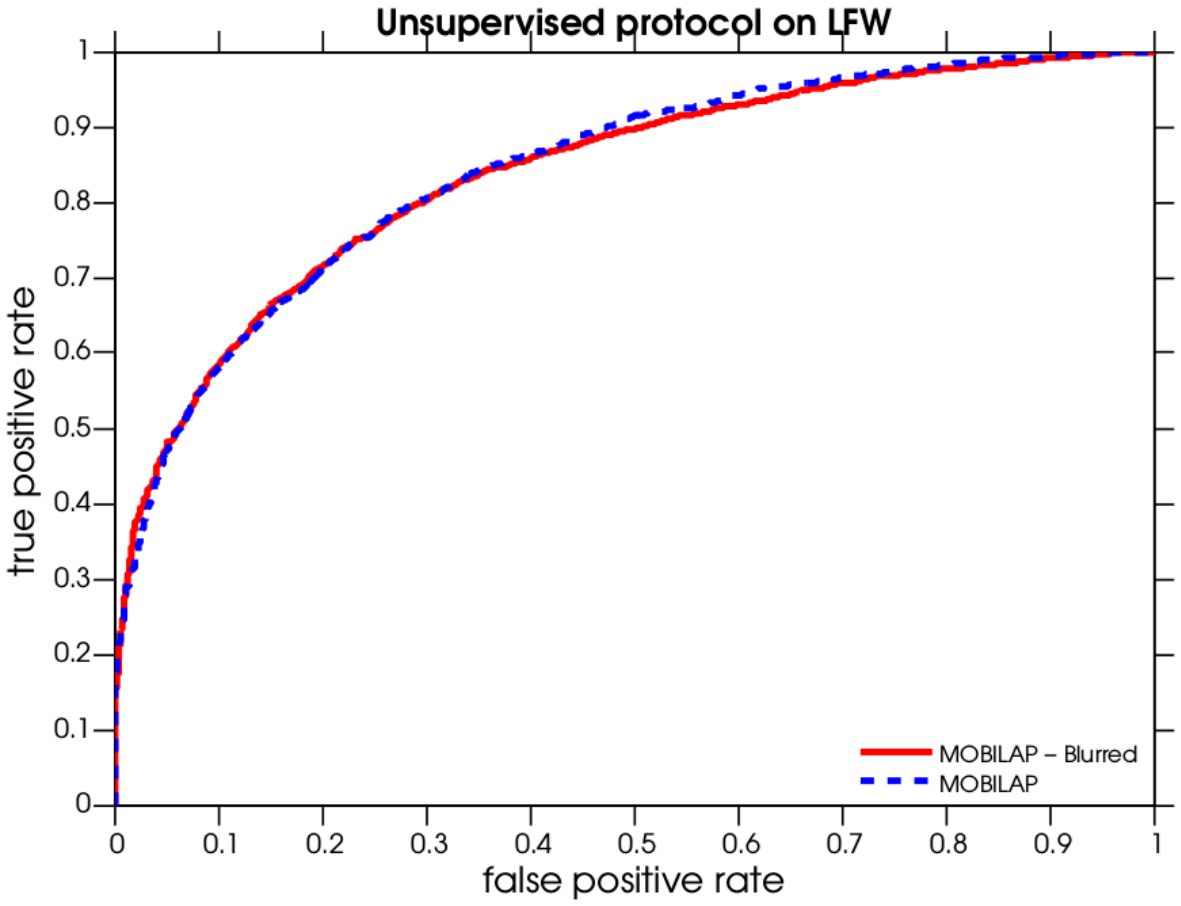

Fig. A.1. ROC curves obtained by MOBILAP on the original LFW dataset (blue) and after blur is synthetically introduced (red).