AdaptiveFace: Adaptive Margin and Sampling for Face Recognition Supplementary Material

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1. Examples of Noisy Data

In Section 3.3, we propose a simple method to filter some noisy data. As shown in Figue 1, we show some examples of noisy data that was filtered out. It can be seen that these noisy images are mainly caused by errors in collection and detection, and our method can easily find these obviously noisy data.

2. Examples of Poor Classes with a Large Number of Samples

In AdaM-Softmax, we hope to learn larger margins for those poor classes, and in the experiment we analyzed the relationship between m and the average sample number of classes. In this section, we analyze those classes that learned large ms but contain a large number of samples. Figure 2 shows the samples of four such classes. It can be seen that although they have a large number of samples, these images are very similar, almost a lot of copies of several images. Therefore, this further confirms that our proposed AdaM-Softmax can adaptively learn larger margins for those poor classes with small intra-class variations.

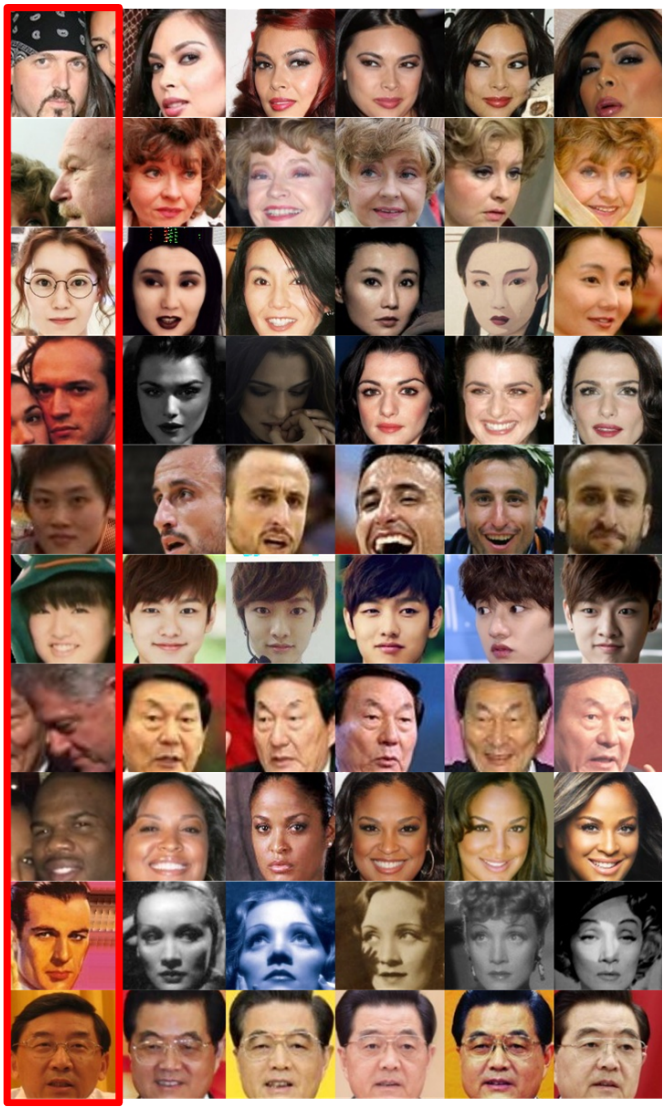

Figure 1. Some examples of filtered noisy images. The first column is the filtered noisy data (in the red box), and the other columns in each row are other images of this person.

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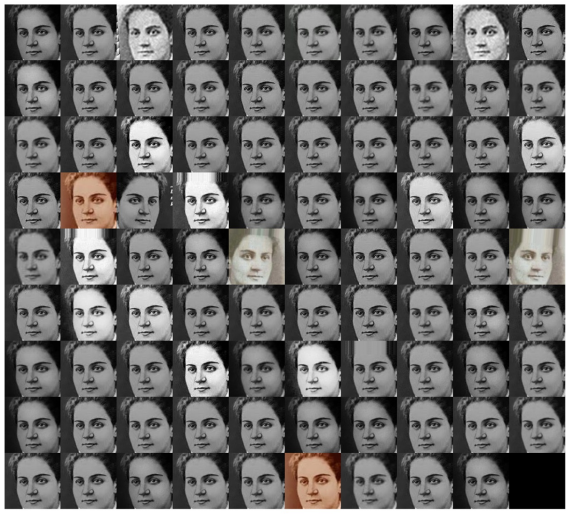
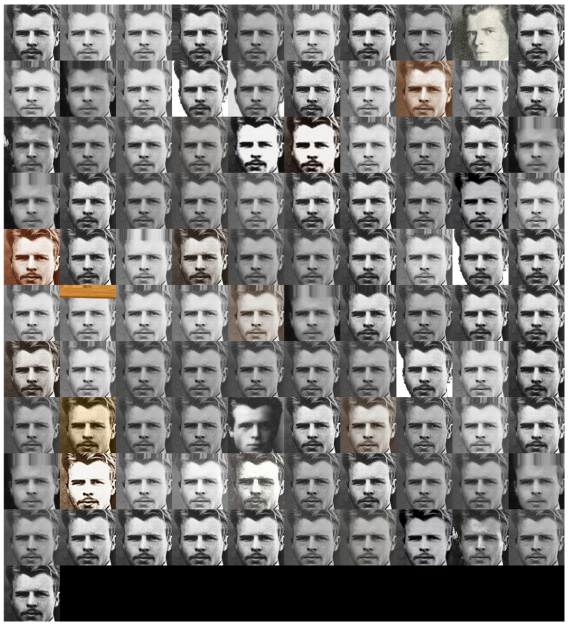


(a) m = 0.604



(b) m = 0.605

(c) m = 0.618

(d) m = 0.626

Figure 2. Four examples of the classes with large m and a large number of samples. It can be seen that the samples of these classes are extremely similar.