Level Playing Field for Million Scale Face Recognition Supplementary Material

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Additional statistics of the MF2 set:



Figure 1. Left: Photos per identity in the data set. Center: Age distribution. Right: Gender distribution.

For comparison and completeness, we show results of [2] and [1], which are the biggest benchmarks for face recognition currently. Both allow any training data, while in this paper only the new proposed public MF2 was allowed to use for training.



Figure 2. Megaface Challenge 1 [2] (unrestricted training set) rank-1 **identification** rates under up to 1M distractions (varying by factors of 10) using FaceScrub (**left**) and FG-Net (**right**) as probe images. Note that the results of MF2 challenge (with public training set) are comparable to those results (any training data).



Figure 3. Megaface Challenge 1 [2] (unrestricted training set) **verification** performance rates with 1M distractors using FaceScrub (**left**) and FG-Net (**right**) as probe images. Note that the results of MF2 challenge (with public training set) are comparable to those results (any training data).

Rank	TeamID	TeamName	Data	Coverage@P=95	Coverage@P=99	Rank	TeamID	TeamName	Data	Coverage@P=95	Coverage@P=99
1	14	DRNfLSCR	Aligned	0.734	0.525	1	13	CIGIT_NLPR	Aligned	0.534	0.026
2	8	ITRC-SARI	Aligned	0.707	0.108	2	14	DRNfLSCR	Aligned	0.486	0.336
3	13	CIGIT_NLPR	Aligned	0.684	0.045	3	17	faceman	Aligned	0.330	0.211
4	20	ms3rz	Aligned	0.646	0.343	4	20	ms3rz	Aligned	0.260	0.110
5	10	1510	Aligned	0.570	0.065	5	7	FaceAl1	Aligned	0.254	0.142
6	7	FaceAl1	Aligned	0.554	0.417	6	18	BUPT_PRIS	Aligned	0.210	0.117
7	17	faceman	Aligned	0.461	0.339	7	21	IMMRSB3RZ	Aligned	0.042	0.039
8	18	BUPT_PRIS	Aligned	0.421	0.216	8	11	BUPT_MCPRL	Cropped	0.040	0.007
9	21	IMMRSB3RZ	Aligned	0.171	0.104	9	12	CIIDIP	Aligned	0.020	0.018
10	12	CIIDIP	Aligned	0.154	0.025	10	8	ITRC-SARI	Aligned	0.004	0.004
11	11	BUPT_MCPRL	Cropped	0.064	0.006	11	6	DS_NFS	Aligned	0.001	0.001
12	19	NII-UIT-KAORI	Aligned	0.001	0.001	11	10	1510	Aligned	0.001	0.001
13	6	DS_NFS	Aligned	-	-	13	23	Paparazzi	Aligned		-
13	23	Paparazzi	Aligned	-	-	13	19	NII-UIT-KAORI	Aligned		

Figure 4. Results of [1] presented here for comparison and completeness. Left: easy set. Right: hard set. Note that the results of MF2 challenge (with public training set) are comparable to those results (any training data).

References

- [1] Y. Guo, L. Zhang, Y. Hu, X. He, and J. Gao. Ms-celeb-1m: Challenge of recognizing one million celebrities in the real world. In *IS&T International Symposium on Electronic Imaging*, 2016.
- [2] I. Kemelmacher-Shlizerman, S. M. Seitz, D. Miller, and E. Brossard. The megaface benchmark: 1 million faces for recognition at scale. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2016.