Lifespan Age Transformation Synthesis
Qualitative Comparison with PyGAN & S2GAN

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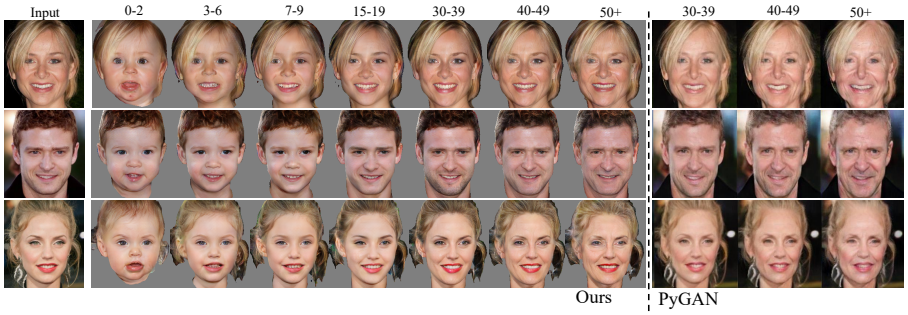

Fig. 1: Comparison w.r.t. PyGAN [3]. Our method produces superior results in terms of photorealism and the span of possible age transformations compared to PyGAN, while using a single generator. Note that the 40–49 class outputs are a result of latent interpolation, this age class was not used during training.

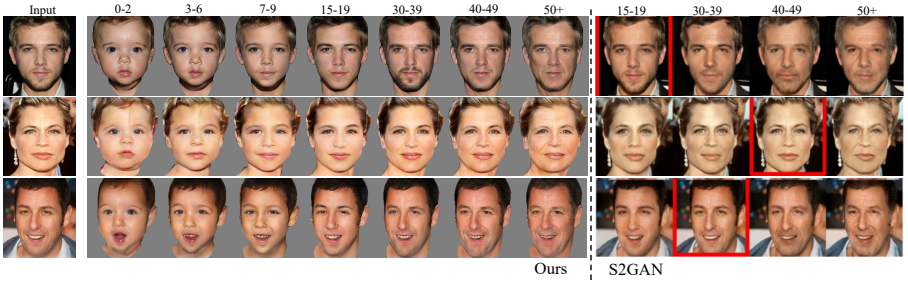

Fig. 2: Comparison w.r.t. S2GAN [2]. We are able to produce sharper wrinkles for older classes as well as more juvenile looking faces for the 15–19 age class. Note that the 40–49 class outputs are a result of latent interpolation, this age class was not used during training.

We compare with PyGAN and S2GAN on CACD dataset [1] in Fig. 1 and Fig. 2 respectively, on the images showcased by the authors in their papers. We

train on FFHQ and test on CACD, while both PyGAN and S2GAN train on CACD dataset. Even though PyGAN is trained with a different generator to produce each age cluster, our network is still able to achieve better photorealism for multiple output classes with a single generator. In comparison to S2GAN, our algorithm is able to create more pronounced wrinkles and facial features as the age progresses, all while spanning wider range of age transformations.

References

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