

Learning to Hallucinate Face Images via Component Generation and Enhancement

Yibing Song¹, Jiawei Zhang¹, Shengfeng He², Linchao Bao³, and Qingxiong Yang⁴

¹City University of Hong Kong

²South China University of Technology

³Tencent AI Lab

⁴University of Science and Technology of China

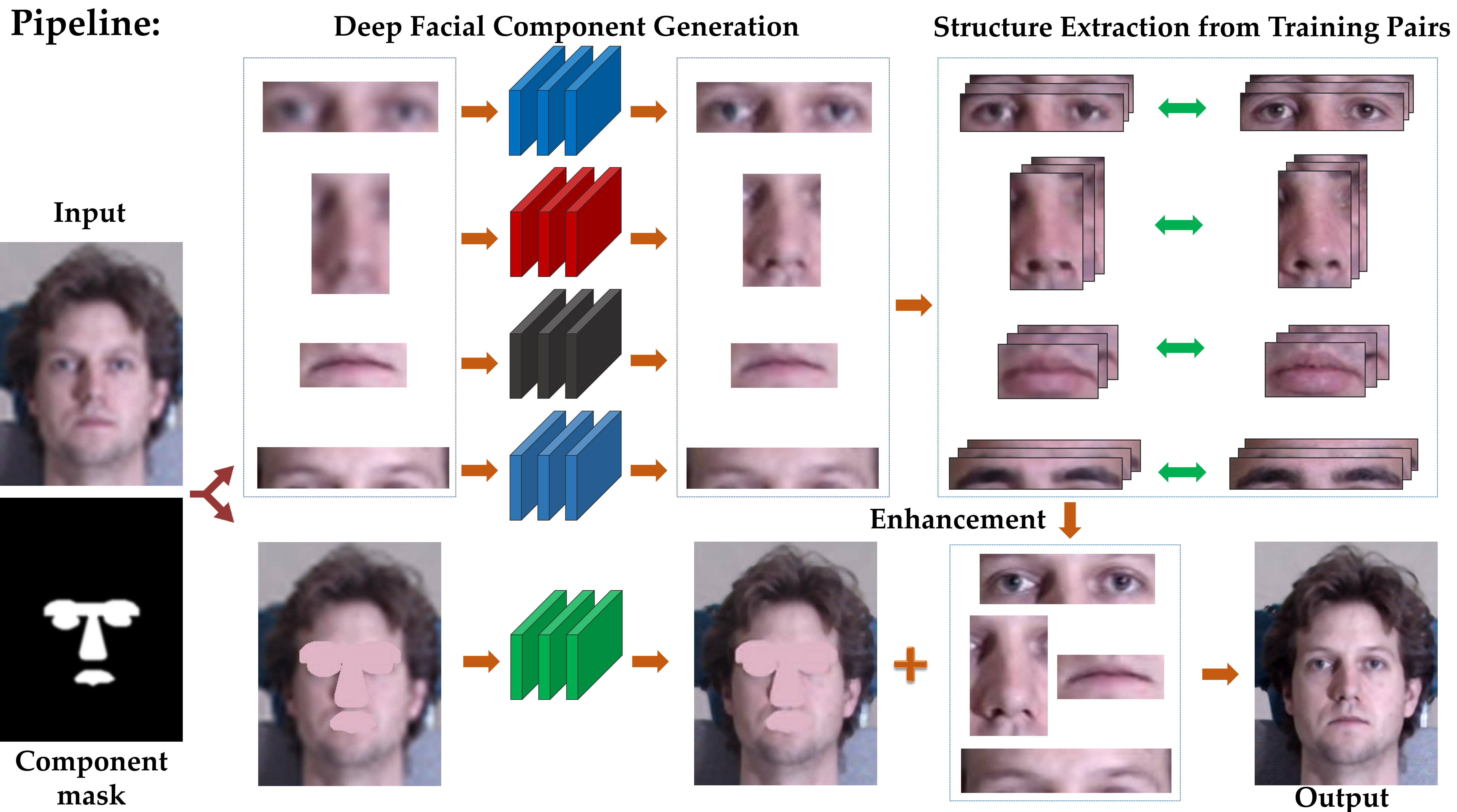
Introduction:

- Face hallucination is a specific image super resolution task on face images.
- Its applications range from face image editing and face recognition preprocessing.
- Data-driven framework achieves superior performance. They transfer HR training details into LR input.

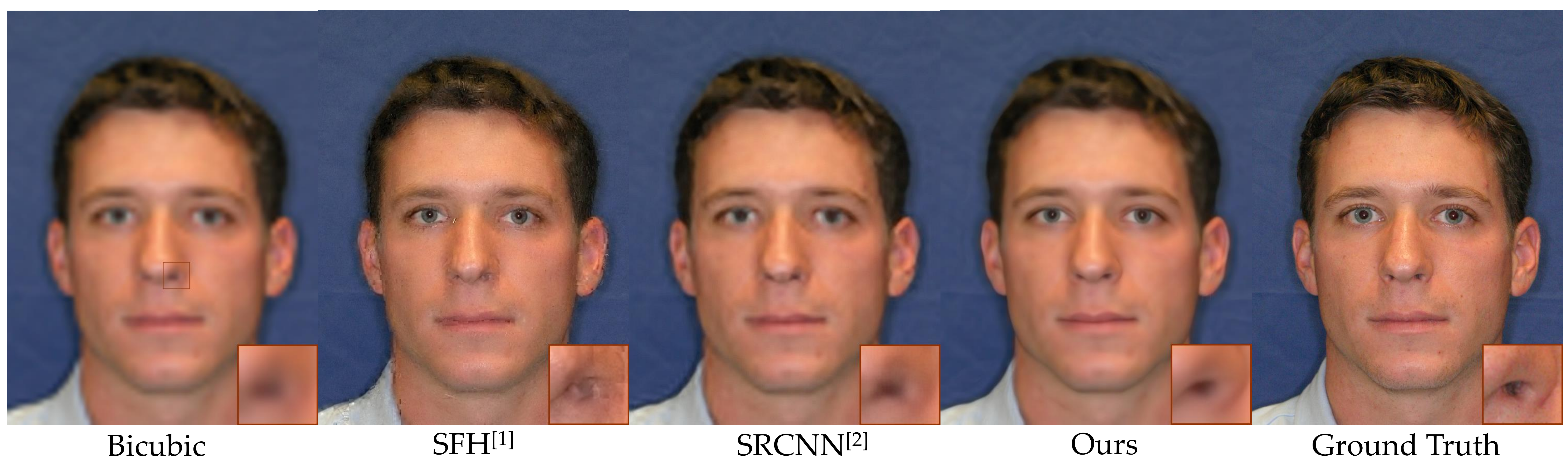
Our contributions:

- ✓ We learn deep facial components via CNNs. They contain basic output structure and facilitate LR matching.
- ✓ We enhance deep components via fine grained structure extraction and transfer.
- ✓ State-of-the-art performance on the benchmark datasets.

Pipeline:



Experiments: Upscaling 10x



References:

1. Structured Face Hallucination. Yang et al. CVPR 2013.
2. Image Super-Resolution using Deep convolutional Networks. Dong et al. IEEE PAMI 2015.