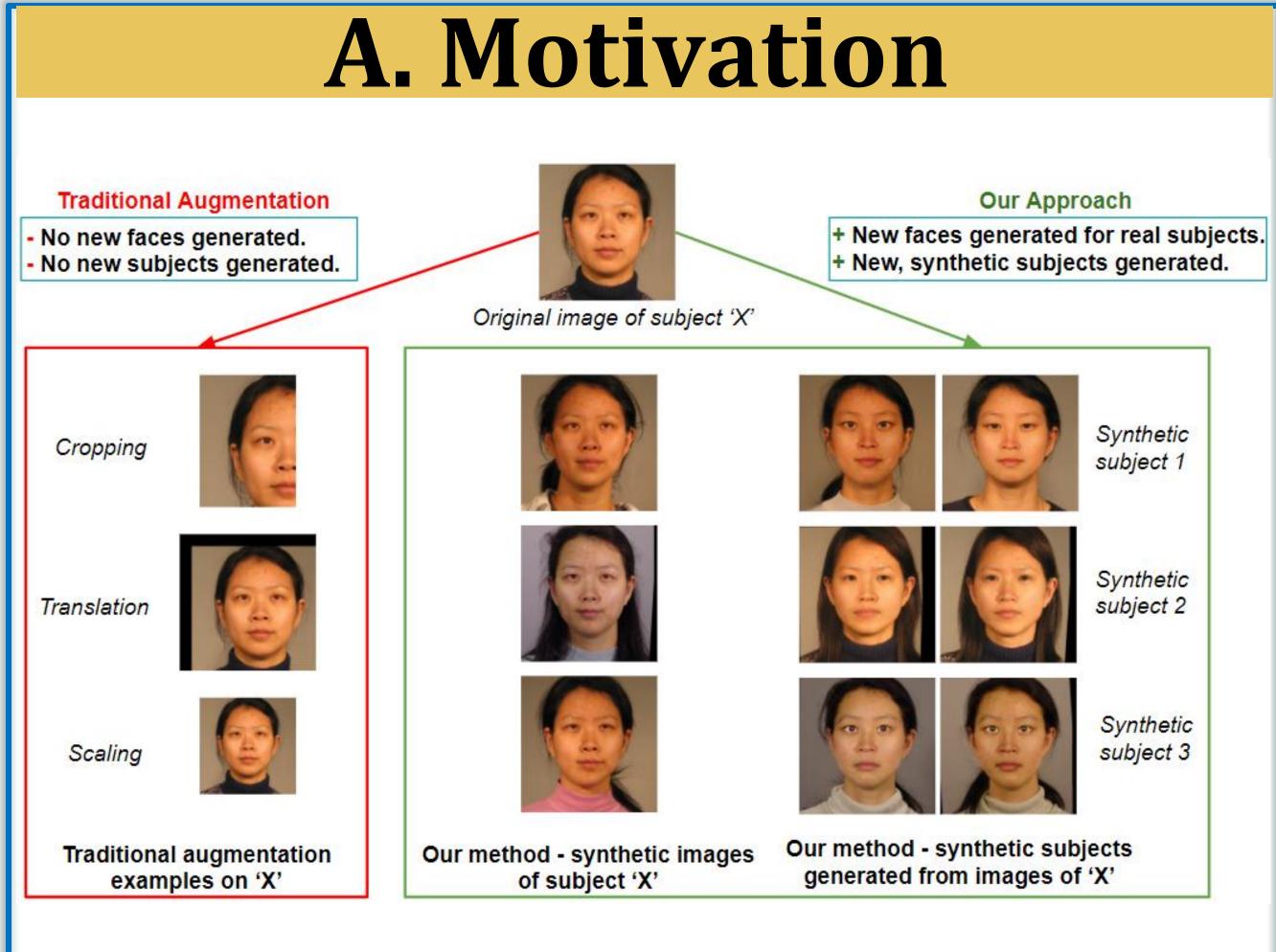


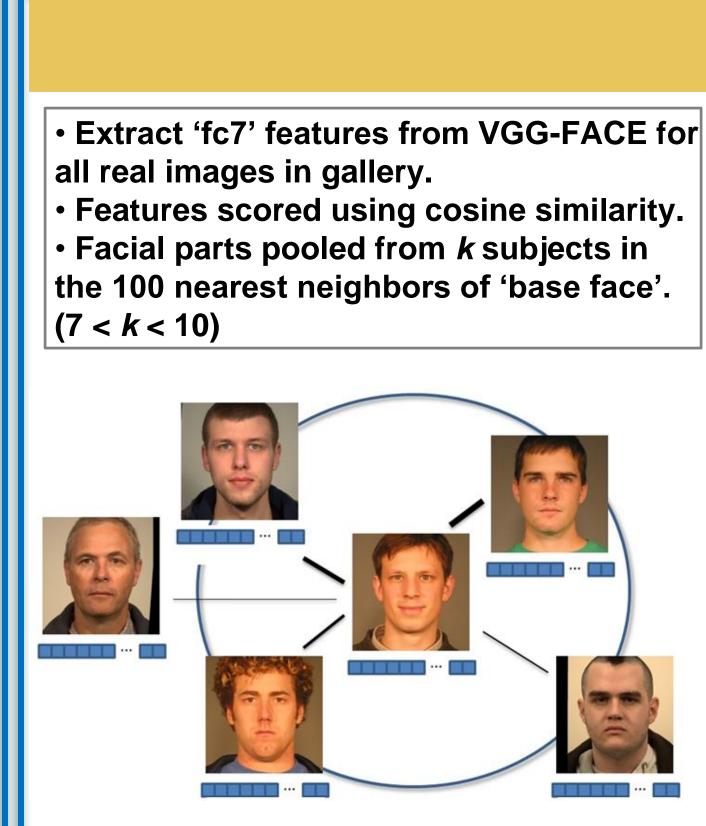
SREFI: Synthesis of Realistic Example Face Images

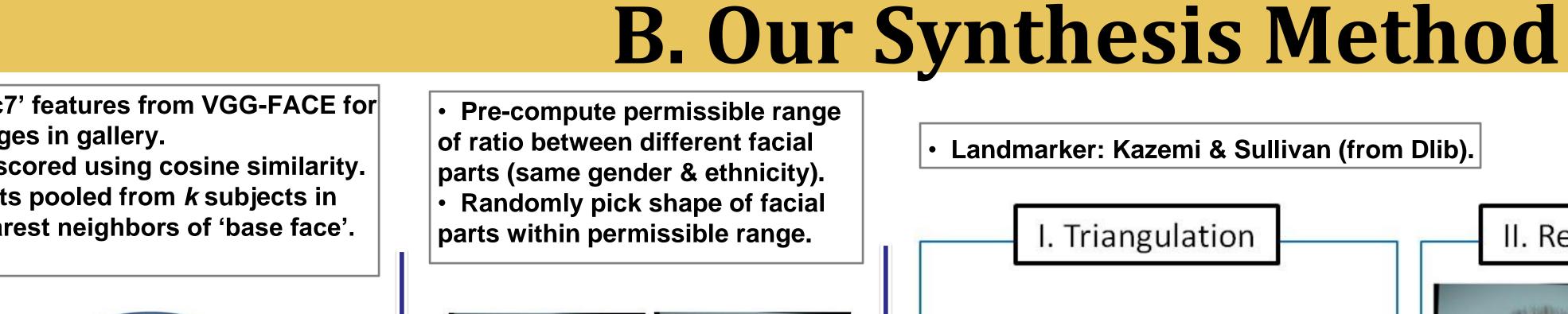
S. Banerjee¹, J. Bernhard², W. Scheirer¹, K. Bowyer¹, and P. Flynn¹ ¹University of Notre Dame, USA, ²FaceTec Inc., USA (sbanerj1@nd.edu)

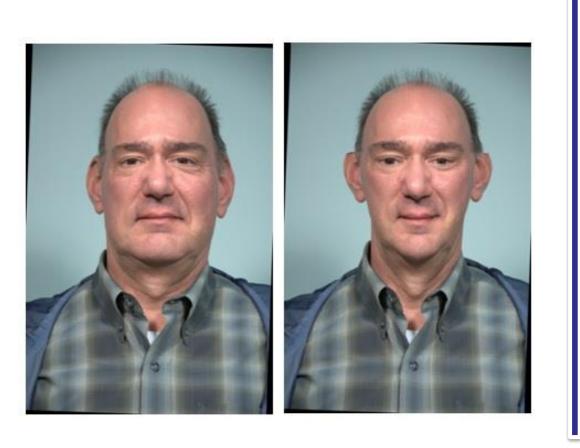
IJCB 2017

Average Runtime: 2 -- 3 seconds (512x512).









I. Triangulation II. Recombining triangles III. Blending (b) (d)

I. Face Pooling (offline)

II. Reshape Facial Parts (offline)

III. Online Elements

C. Qualitative Results

Synth_2_MA_Sub_1







Synthetic Images

RvR

Synthetic Images







Real Subject

Real Subject



Synthetic Images Synthetic Images

Synthetic Images

MA_Sub_1

MW_Sub_1





Synth_1_MA_Sub_1

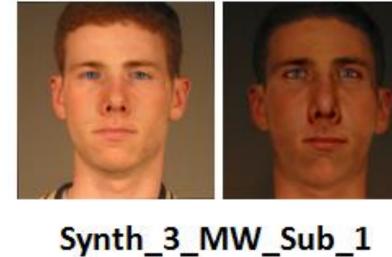












II. Synthetic Subjects (512x512)



FA_Sub_1

FW_Sub_1



• Landmarker: Kazemi & Sullivan (from Dlib).





Synth_1_FA_Sub_1

Synth_1_FW_Sub_1



Synth_2_FA_Sub_1





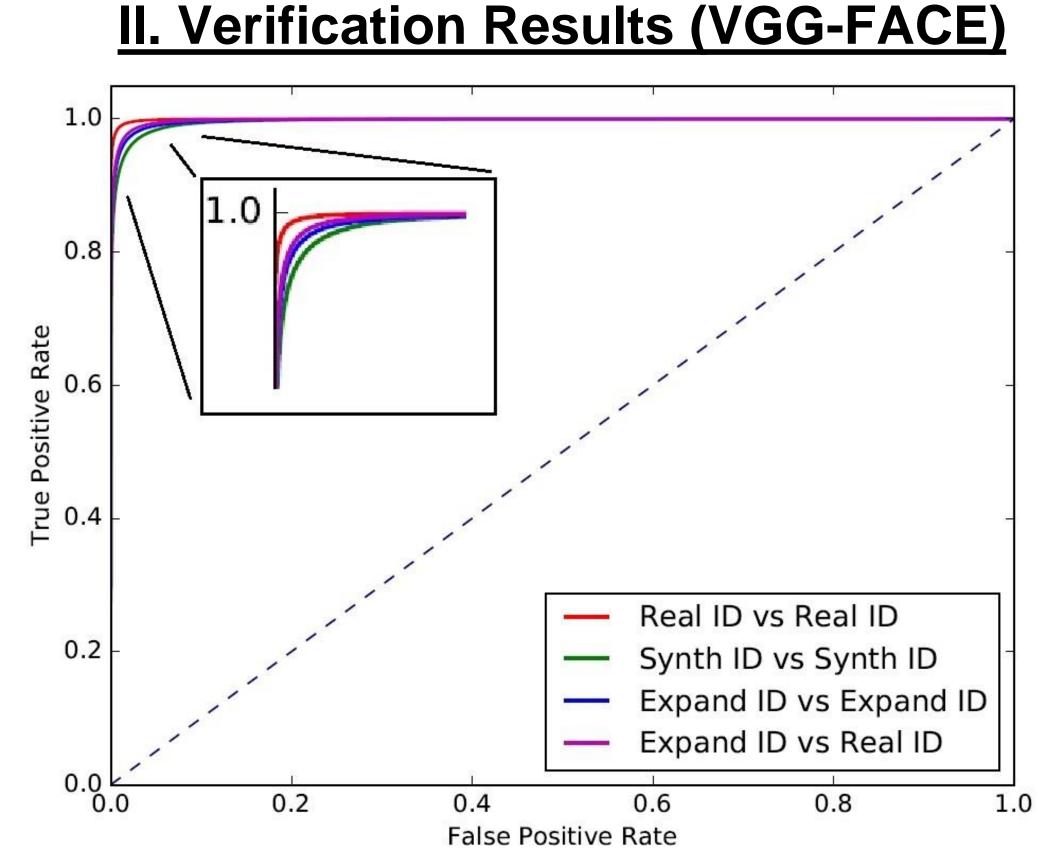
Synth_3_FA_Sub_1

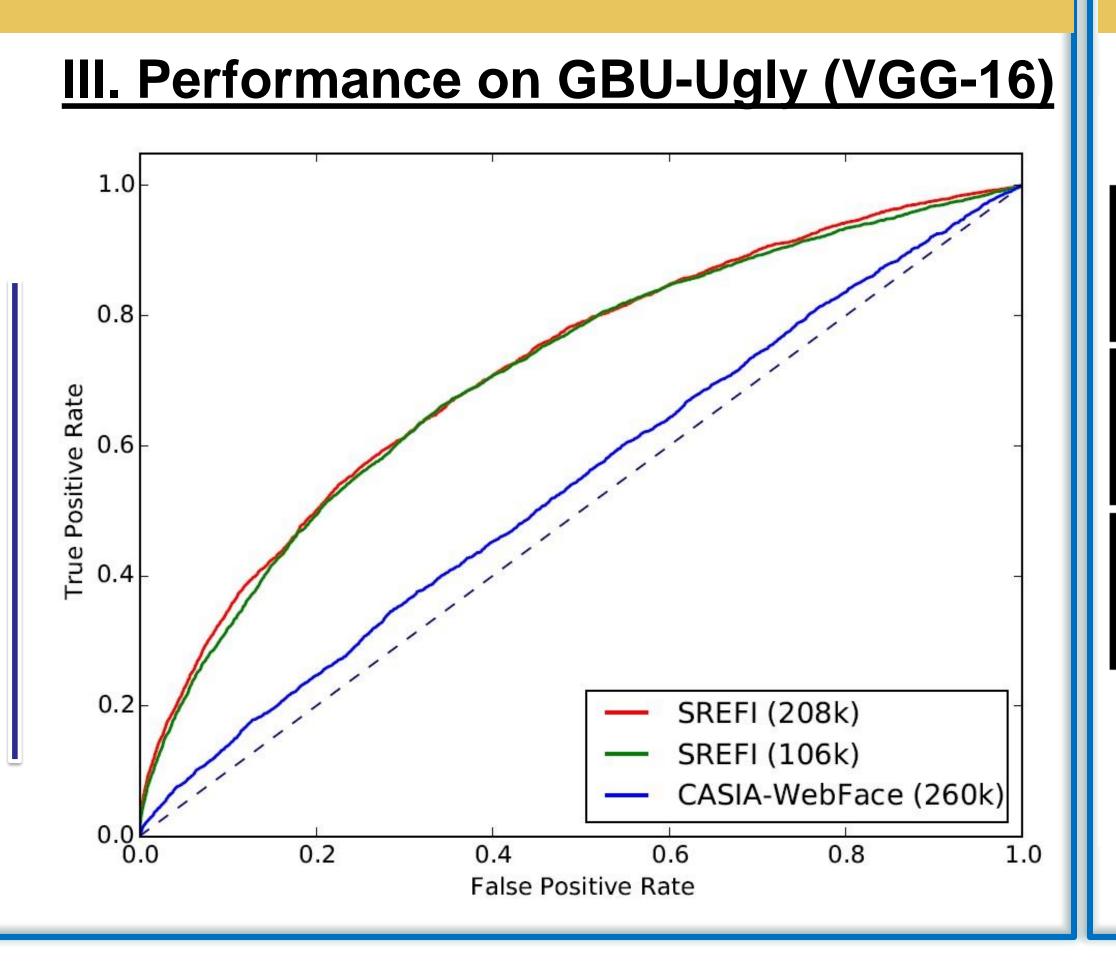
Synth_2_FW_Sub_1 Synth_3_FW_Sub_1

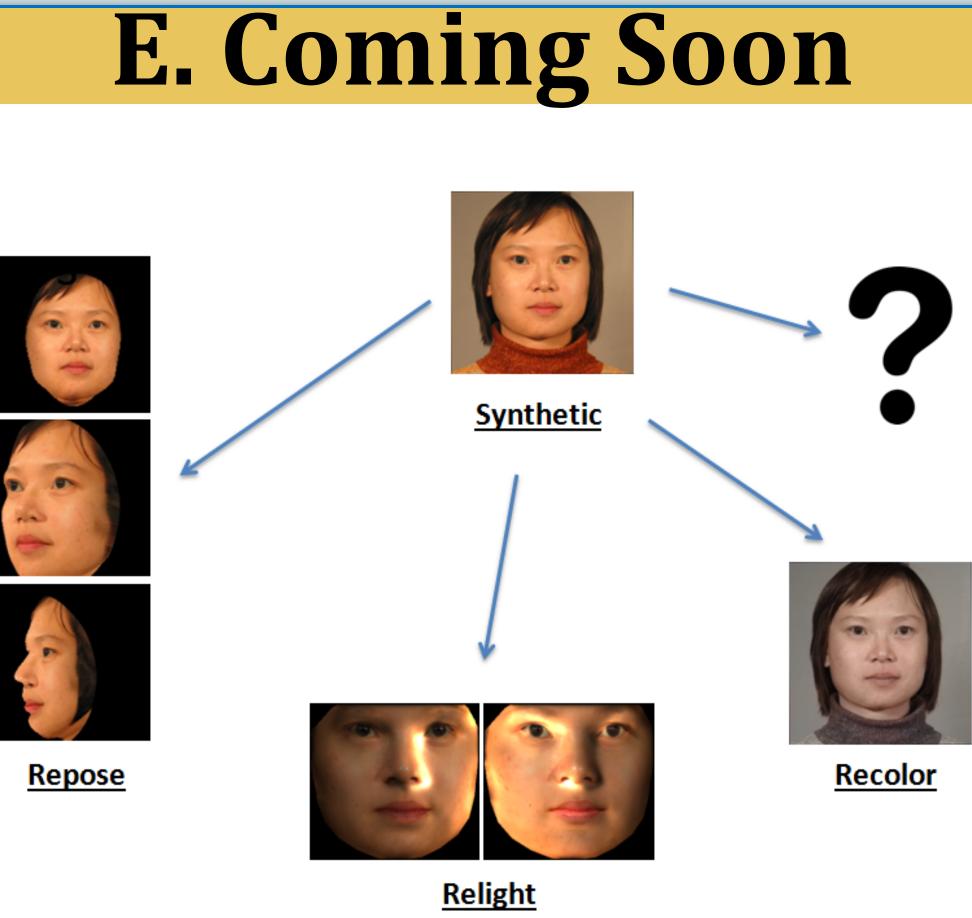
D. Quantitative Results

I. Human Rater Study (20 raters) 100 F 90 raters participated. an image pair. 50 RvR: Real vs. Real SvR: Synth vs. Real SvS: Synth vs. Synth

20 non-expert human Task was to match a given face image pair. Minimal prior training. 2 seconds to match Score averaged from 300 pairs and 20 raters.







SvR

^{*} Hardware support was generously provided by NVIDIA.