Face Swap

Conquerors

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Introduction

- ## Face Swap
  an instance of digitally swapping the faces of two subjects in an image, for humorous effect
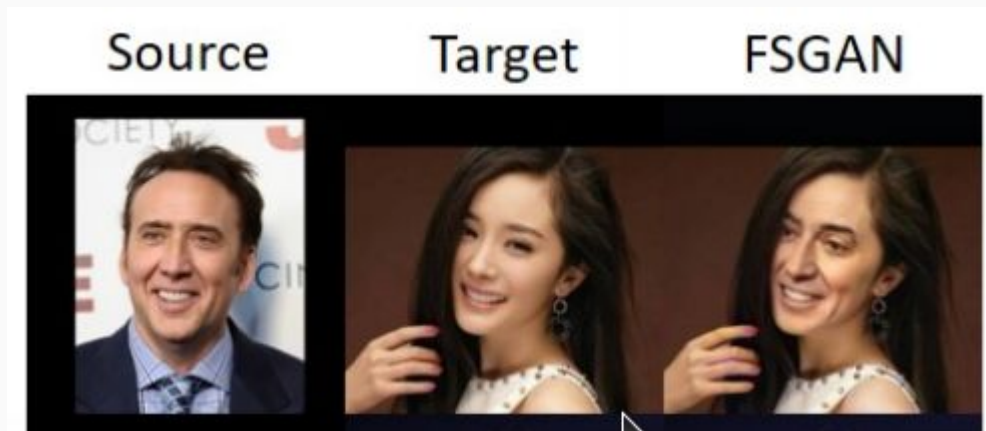- ## Previous model
  Based on CNN model
- ## Current model
  Based on GAN(fsgan) model
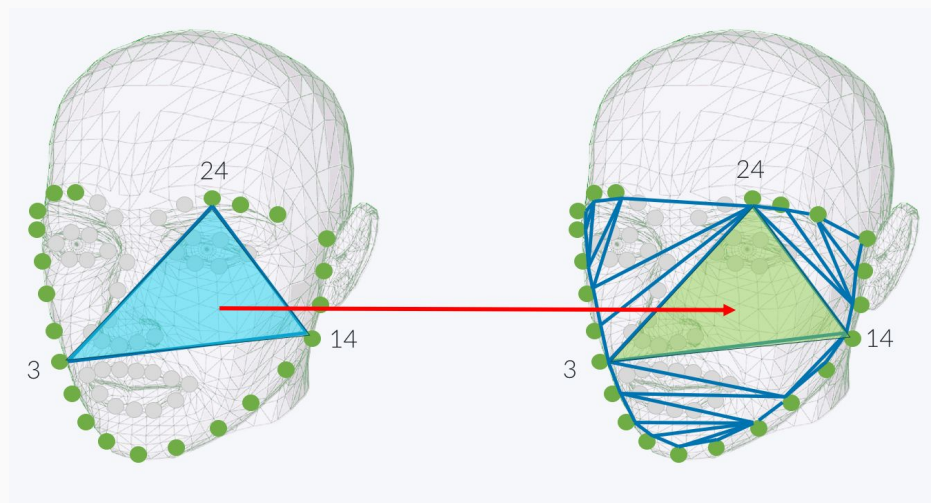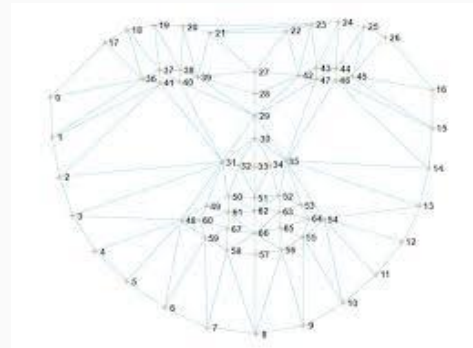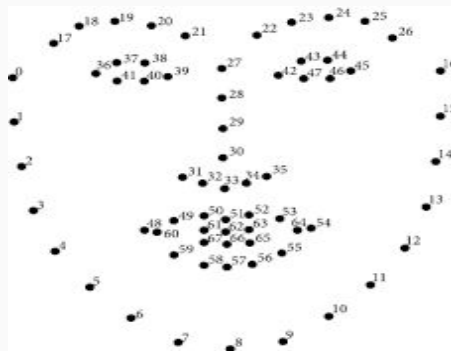
Face Swap

Source | Target | FSGAN

Previous model

The model was based on CNN.

We used CNN model and trained our model for getting points on face.

Making triangles on face.
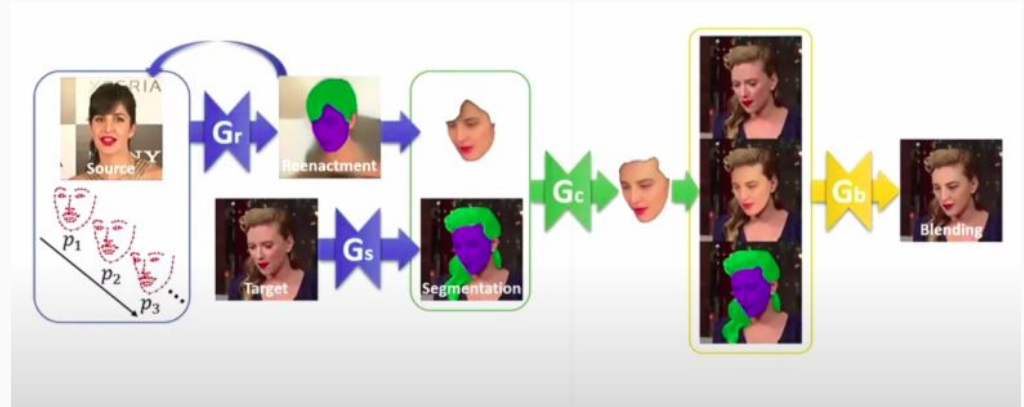
Swapping those triangles.

Current model

The model is based on GAN.

We used different generators for swapping the face seamlessly.

Used dlib library for detecting face landmarks.

Datasets

- ### Video sequences of the **IJB-C** dataset (generator Gr)
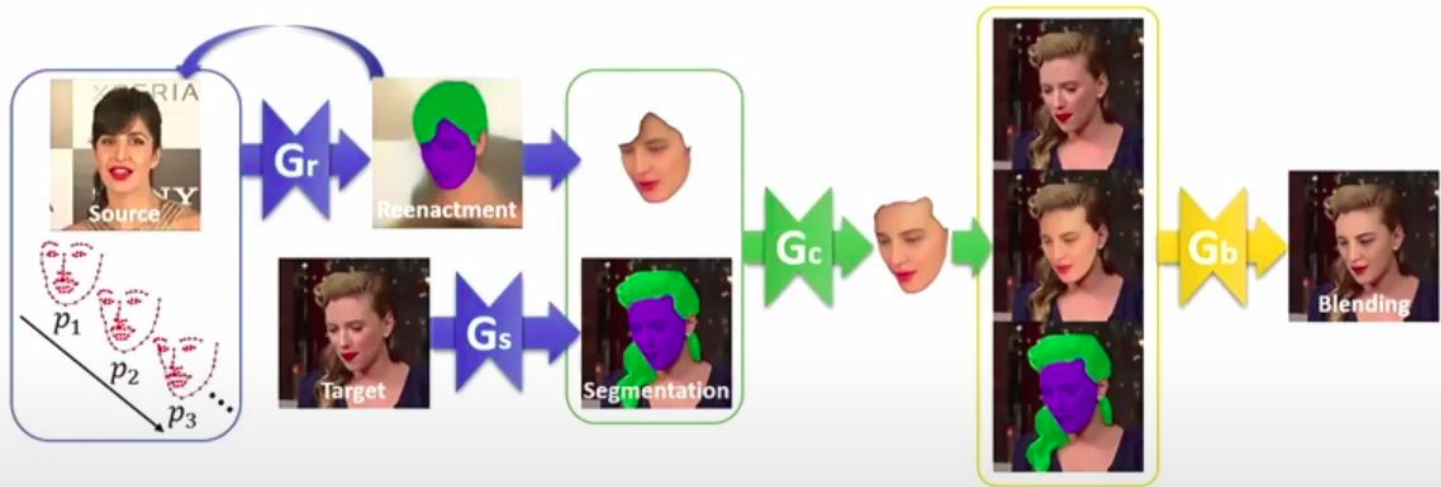 Contains ~11k face videos
- ### dlib's face verification
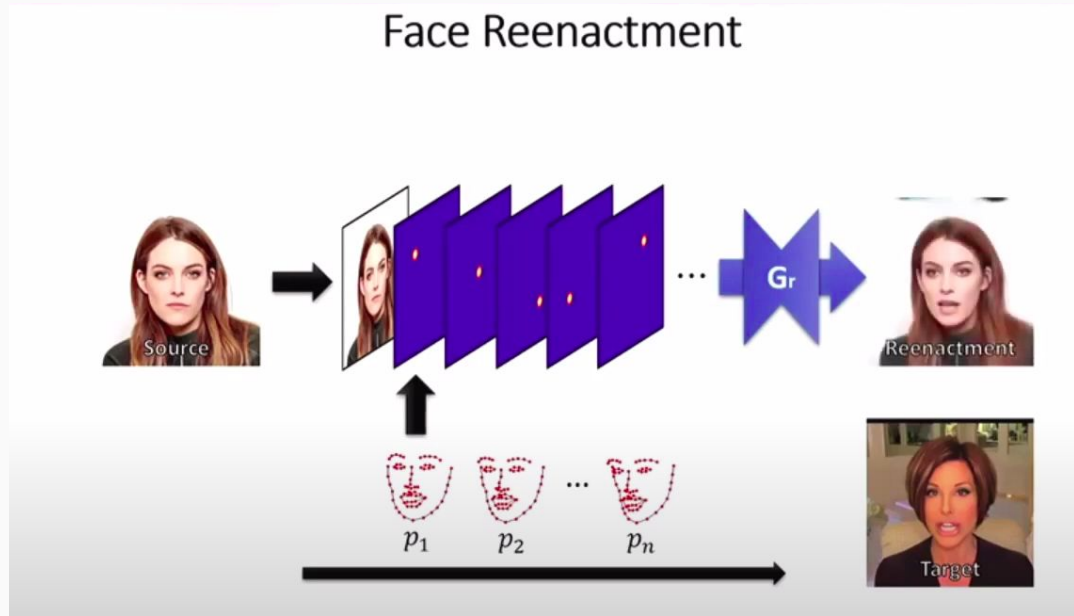 for grouping frames according to the subject identity
- ### Figaro dataset
  ~1k images for hair segmentations

Architecture

Architecture

Result

- ❖ Performance
  - ➢ Qualitation
    - ■ Its depends on our source and target qualities.
  - ➢ Quantitative
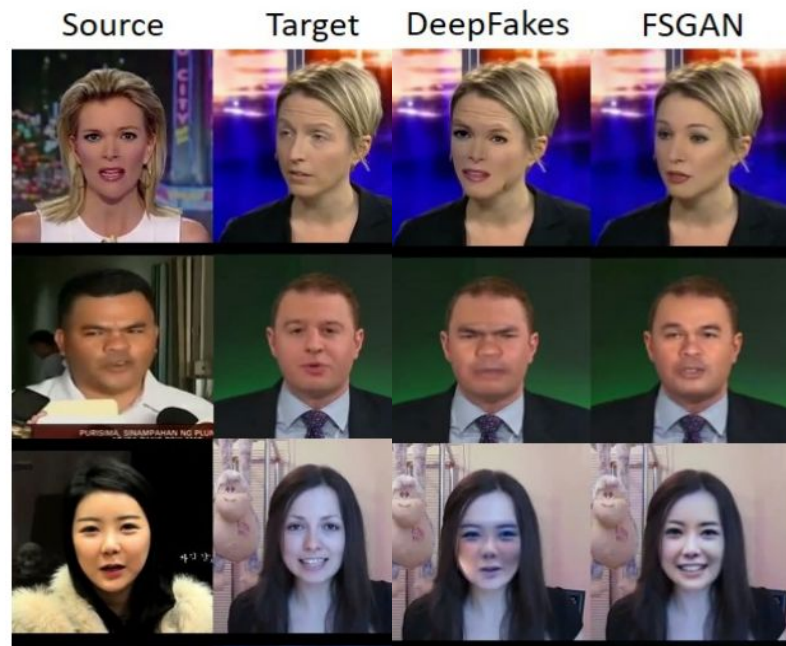   - ■ Calculation of accuracy of our project.
- ❖ Exist Method
  - ➢ DeepFake
  - ➢ FsGan

Result

Comparison with other methods

Method	landmarks
DeepFakes (CNN)	19.205
FSGAN	8.072

Practical Result

Reference

- https://github.com/YuvalNirkin/fsgan
- https://arxiv.org/pdf/1908.05932.pdf
- https://github.com/soheil-mpg/Facial-Keypoint-Detection
- https://github.com/deepfakes/faceswap#overview

Thanks