# Digital Makeup Face Generation

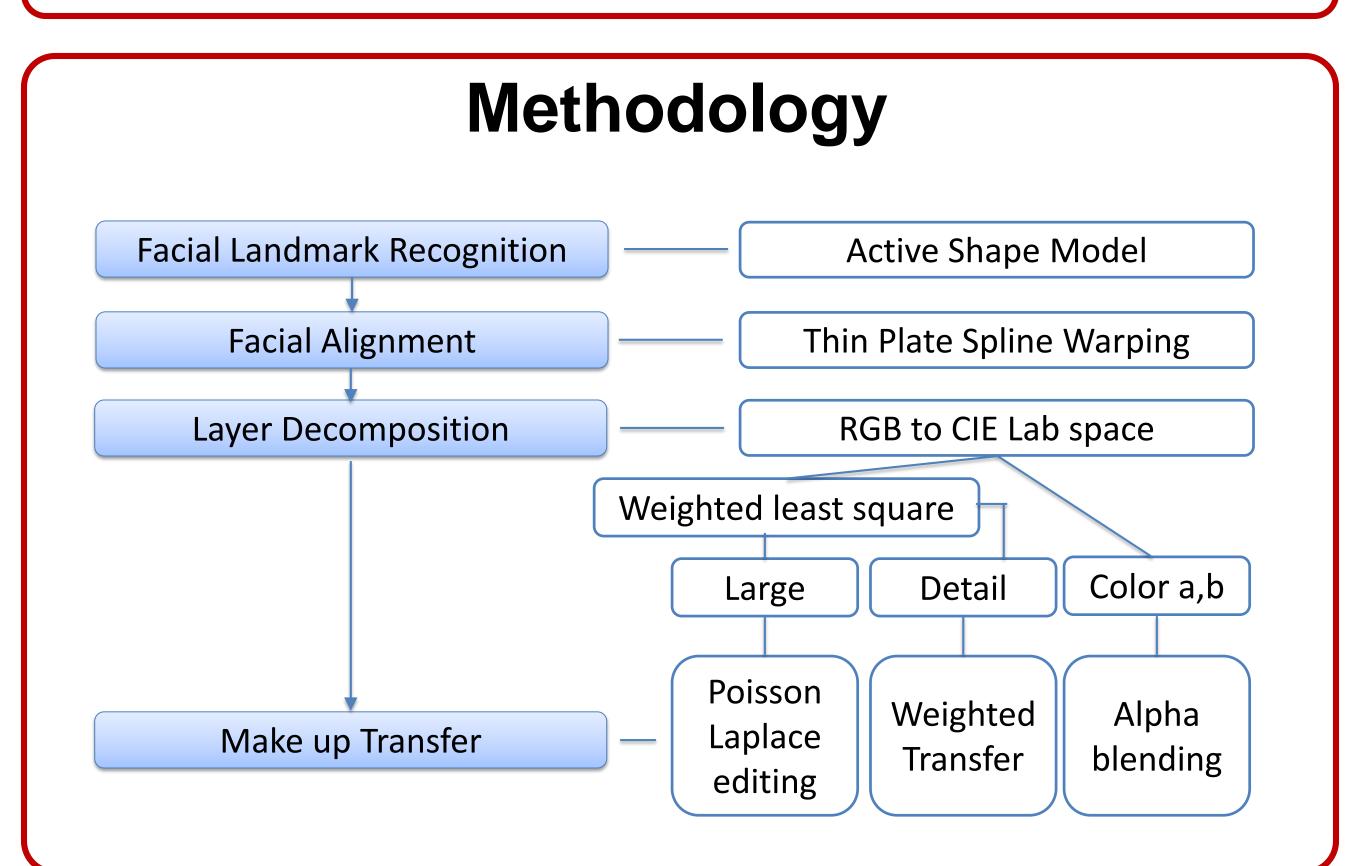
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#### Introduction

Make up applications offer photoshop tools to get users' inputs in generating a make up face. While this has been a well established area of development, automatic transfer of make-up from a reference to a target image presents more challenges.

This project applies the make up from a reference image to a target by performing four main steps (1)Facial landmarks recognition (2)Facial alignment (3) Layer Decomposition (4)Transfer of face details, highlights and colors through each layer.

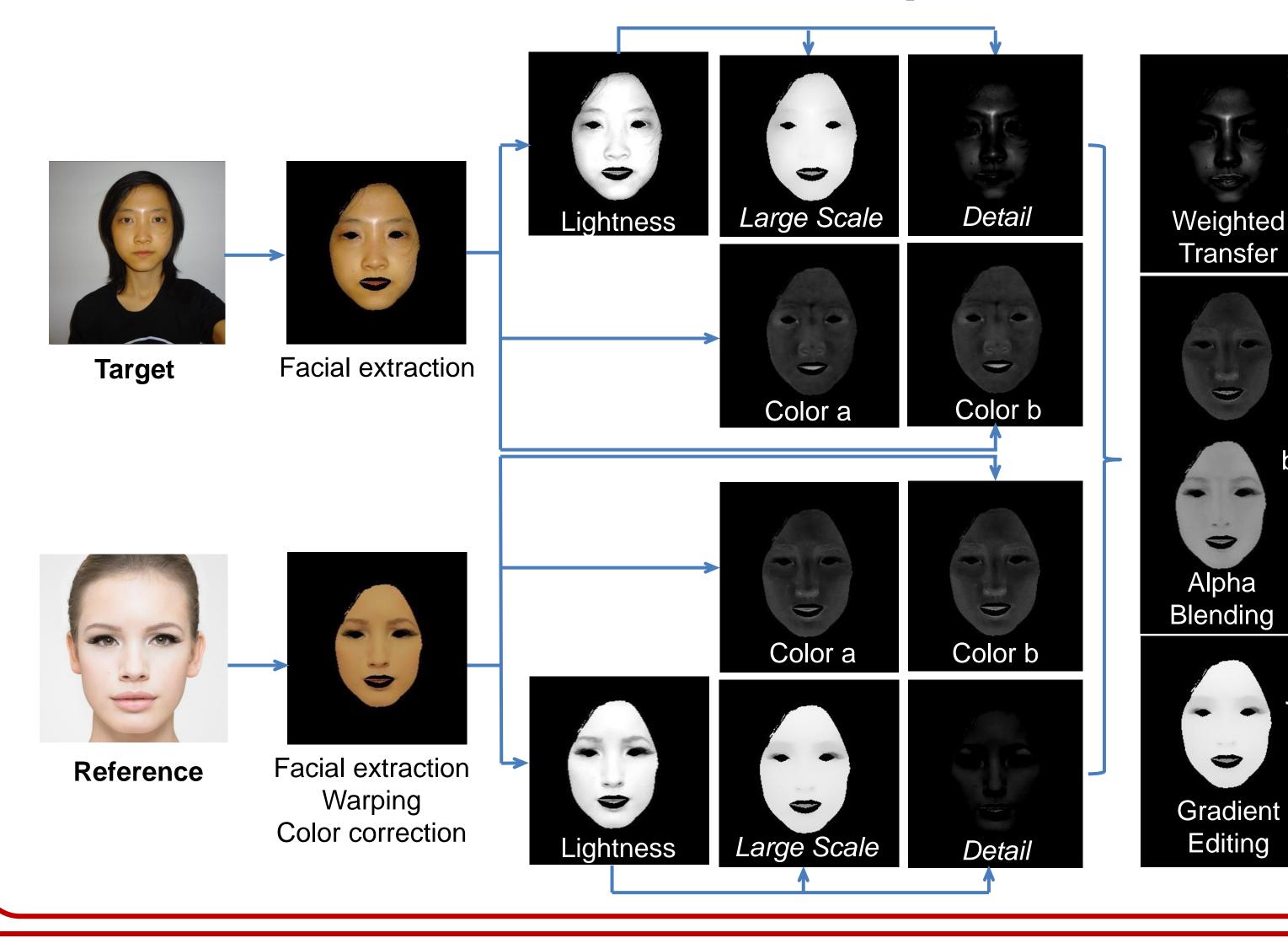


#### References

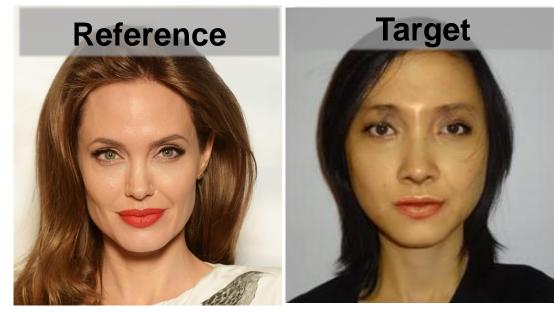
[1] S. Milborrow and F. Nicolls, "Locating Facial features with an Extended Active Shape Model," in EECV, 2008.

[2] Z. e. a. Farbman, "Edge-preserving decompositions for multi-scale tone and detail manipulation," ACM Transactions on Graphics (TOG), vol. 27, no. 3, p. 67, 2008.

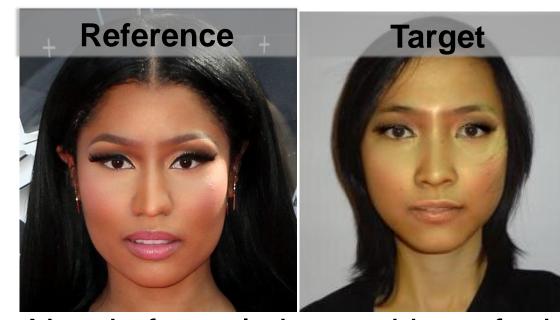
## Work flow of Make up Transfer Model



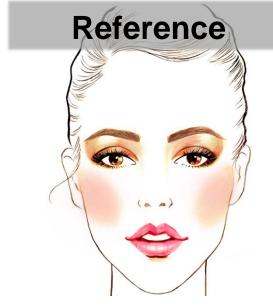
### **Results and Limitations**



- Face contours, not due to make up, were transferred
- Distortion of the reference image when warping



Needs frontal views with no facial expression



Alpha

- -

9

Editing



**Target with** 

Make up

Ideal reference image