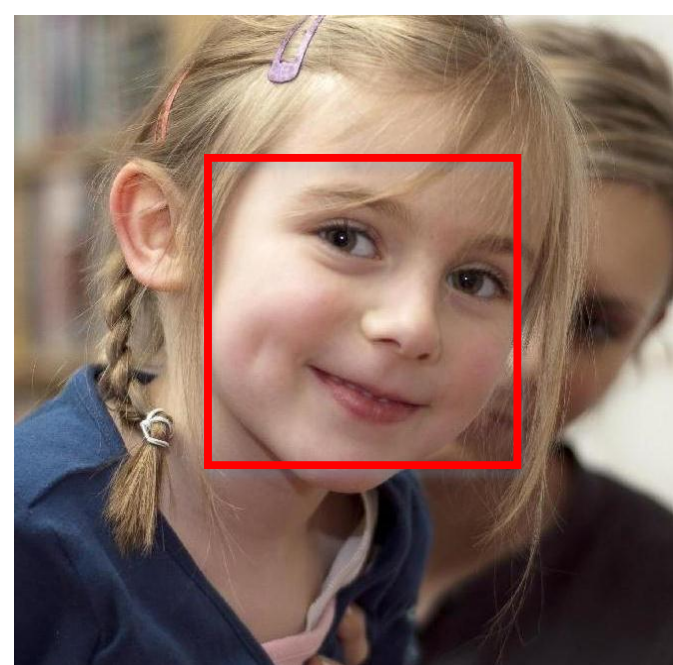
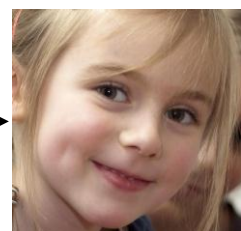
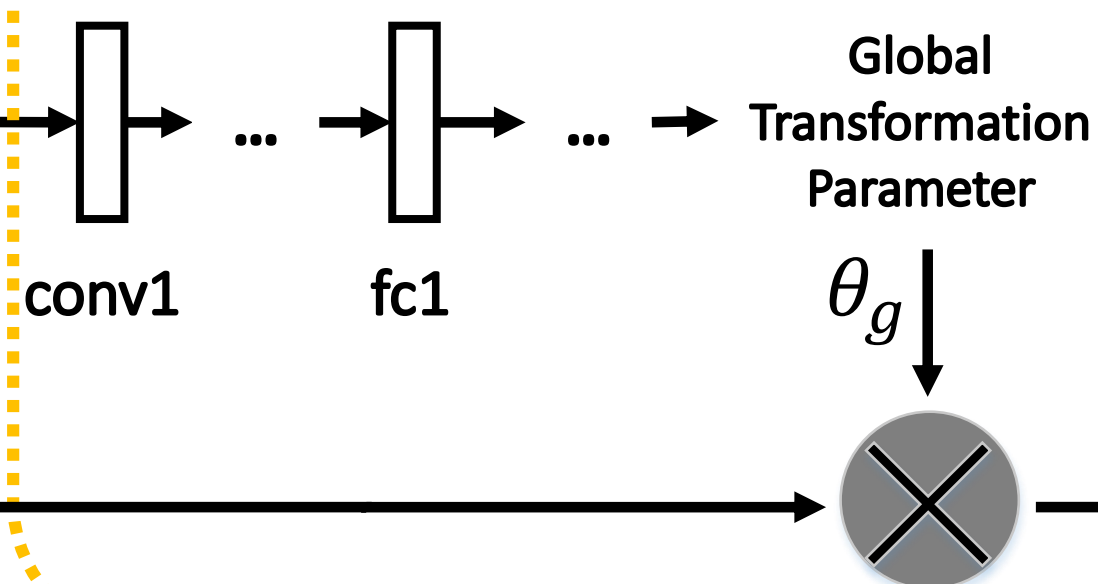


Initial Image I 

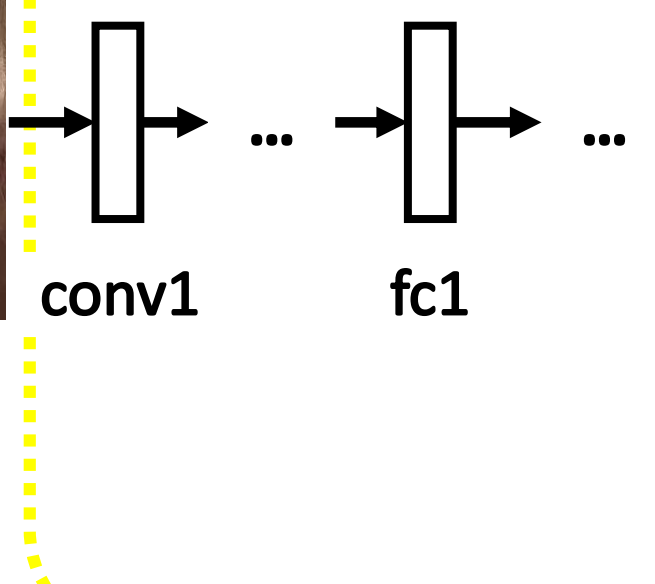
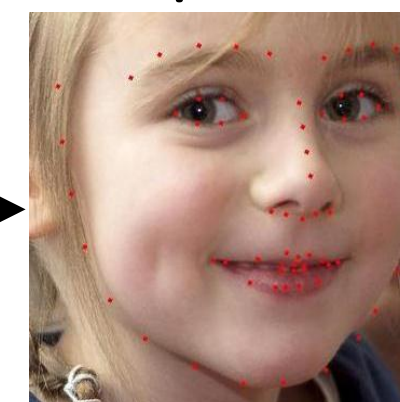
(I) Global Stage

Initial Face F Initial Face F' 

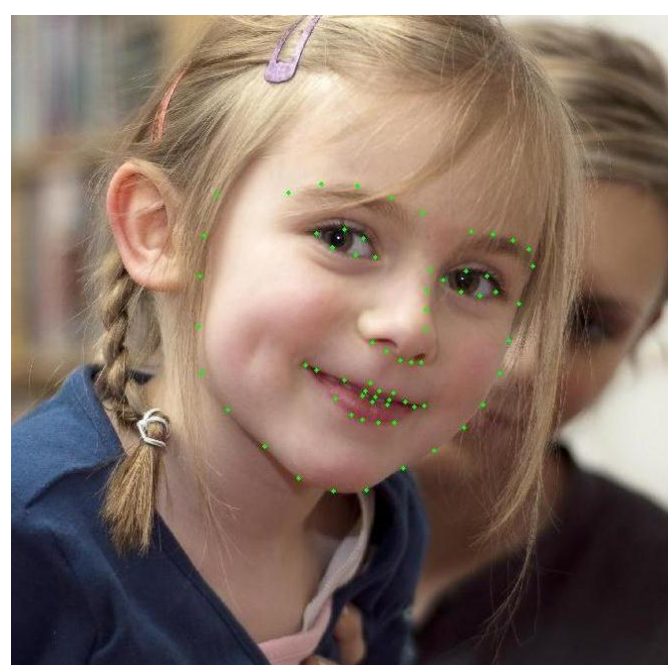
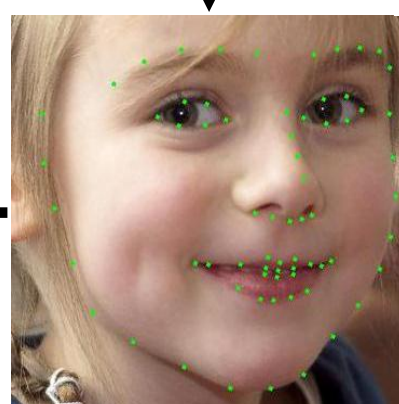
(a) Global Re-initialization Subnetwork

 F_g 

(b) Global Regression Subnetwork

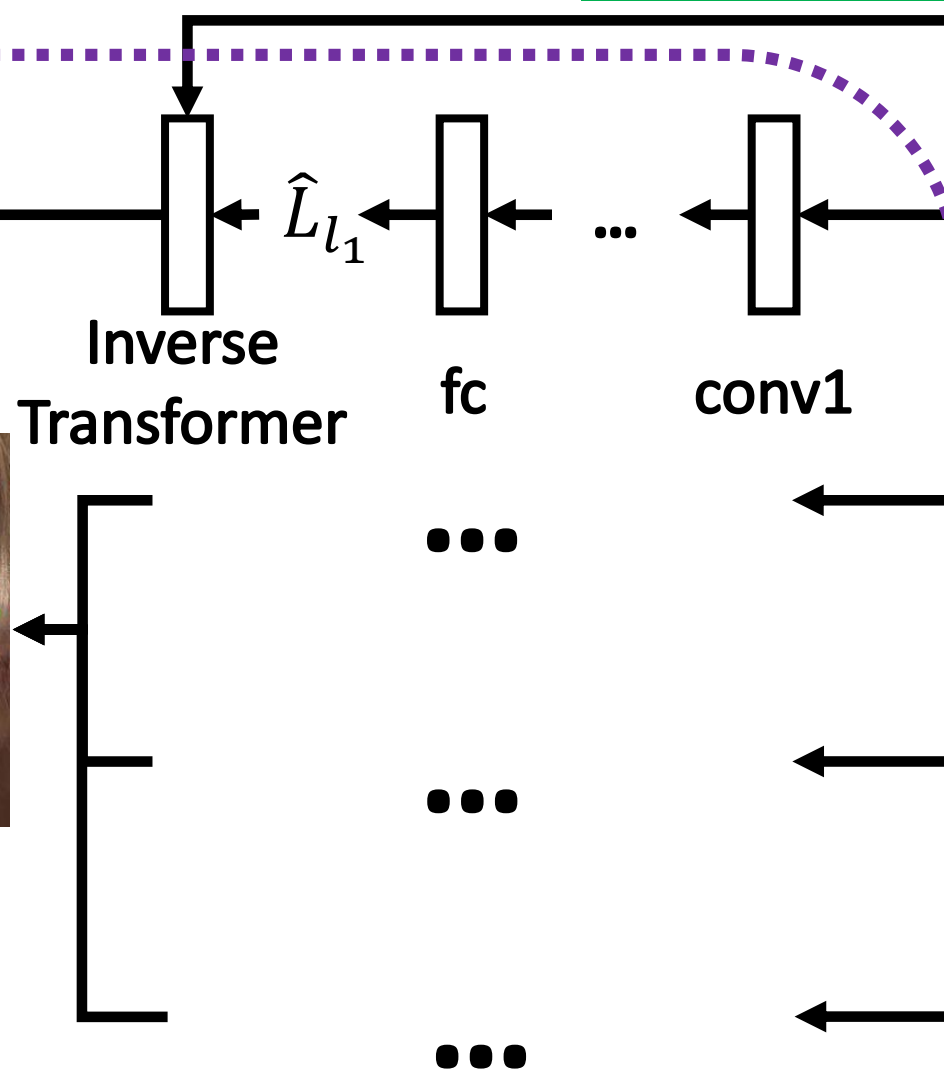
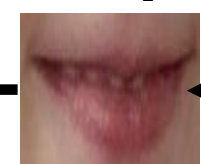
Coarse Shape \hat{G} 

(II) Local Stage

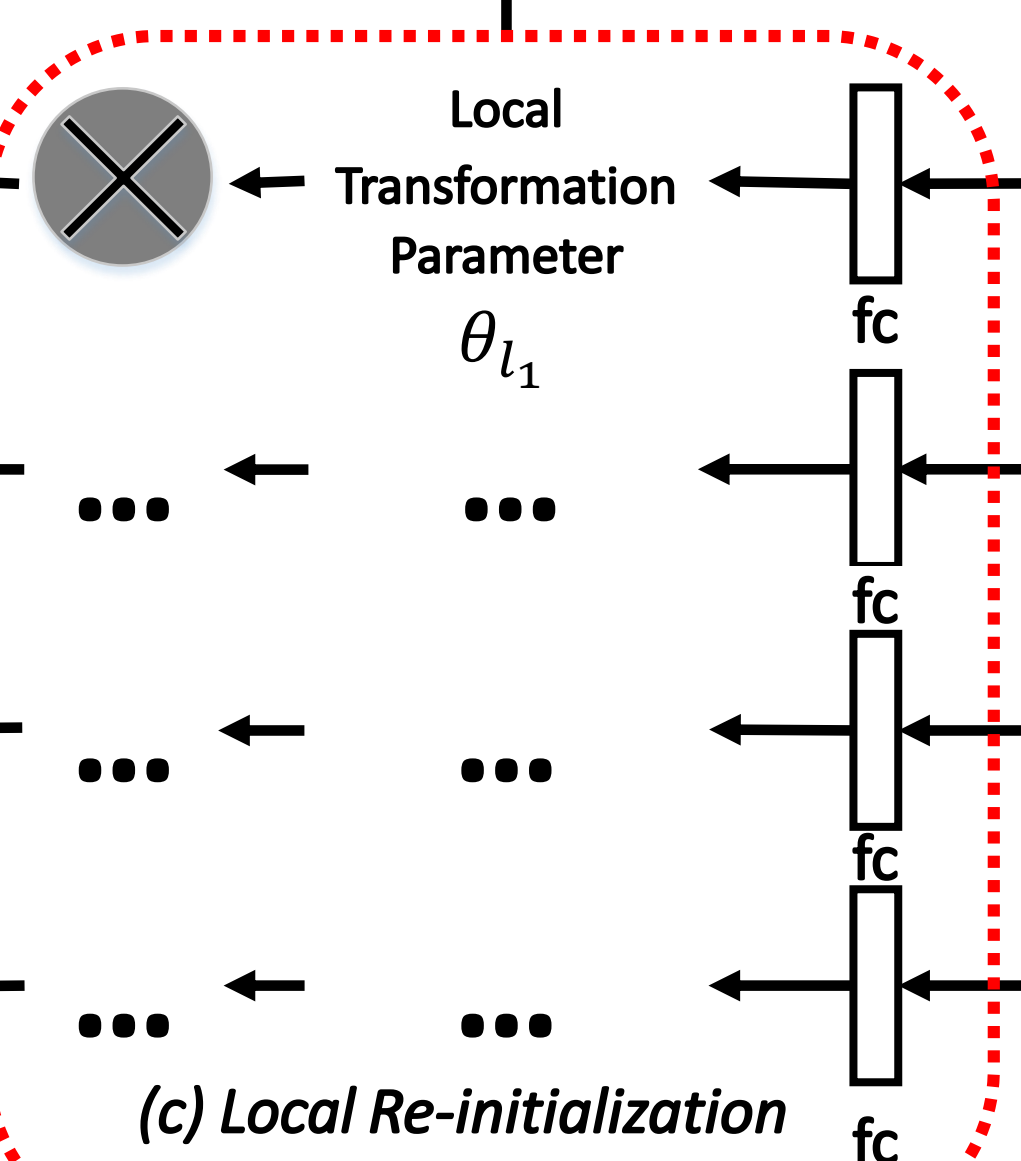
Final Result \hat{S} Local Shape \hat{L} 

Inverse Transformer

(d) Local Regression Subnetwork

 F_{l_1}  F_{l_2}  F_{l_3}  F_{l_4} 

(c) Local Re-initialization Subnetwork

Shape of Left Eye \hat{G}_{l_1} Shape of Right Eye \hat{G}_{l_2} Shape of Nose \hat{G}_{l_3} Shape of Mouth \hat{G}_{l_4} Shape of Contour Landmarks \hat{G}_{l_5} Shape of Contour Landmarks \hat{G}_{l_5} Shape of Contour Landmarks \hat{G}_{l_5} Shape of Contour Landmarks \hat{G}_{l_5} Shape of Contour Landmarks \hat{G}_{l_5}