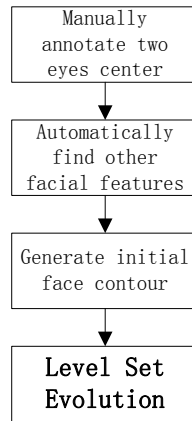
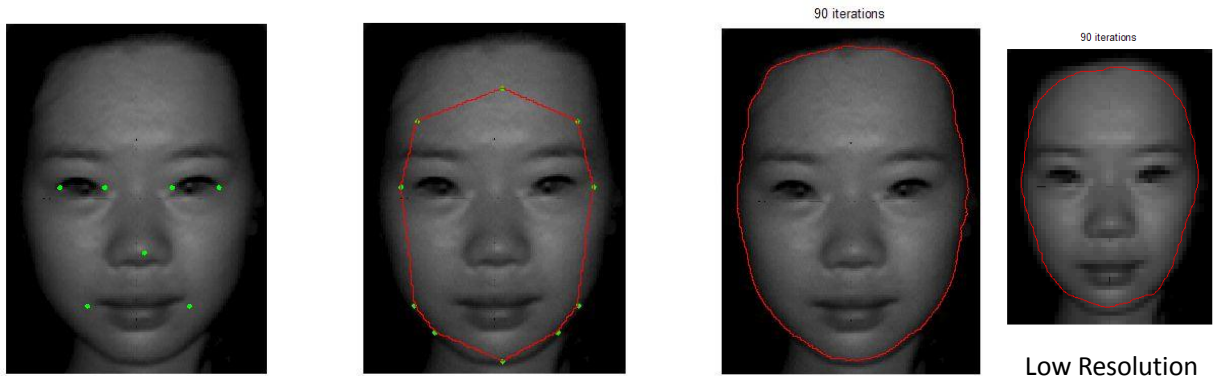


# Report on Face Segmentation

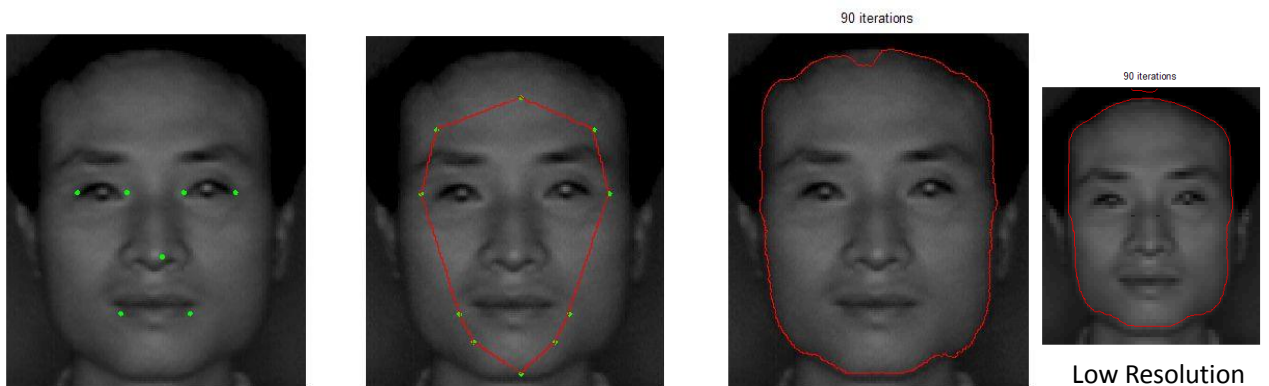
## 1. Flow Chart



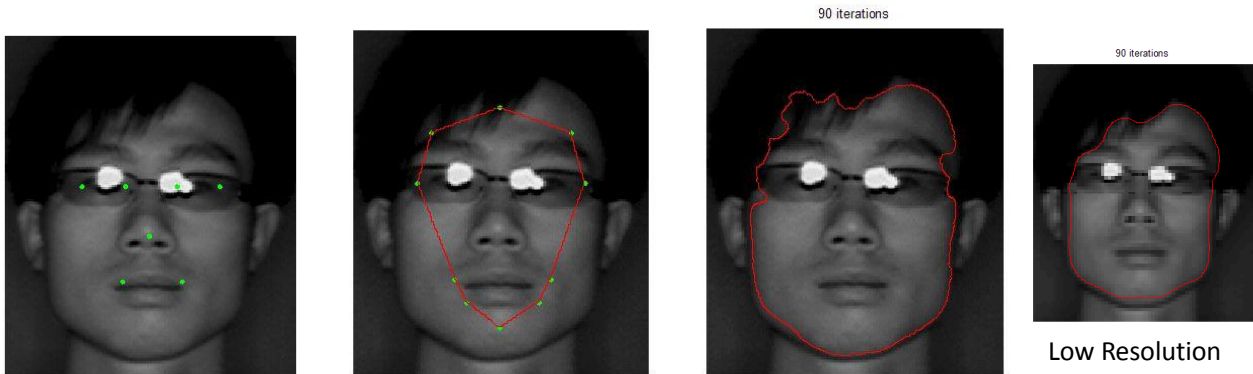
## 2. Results



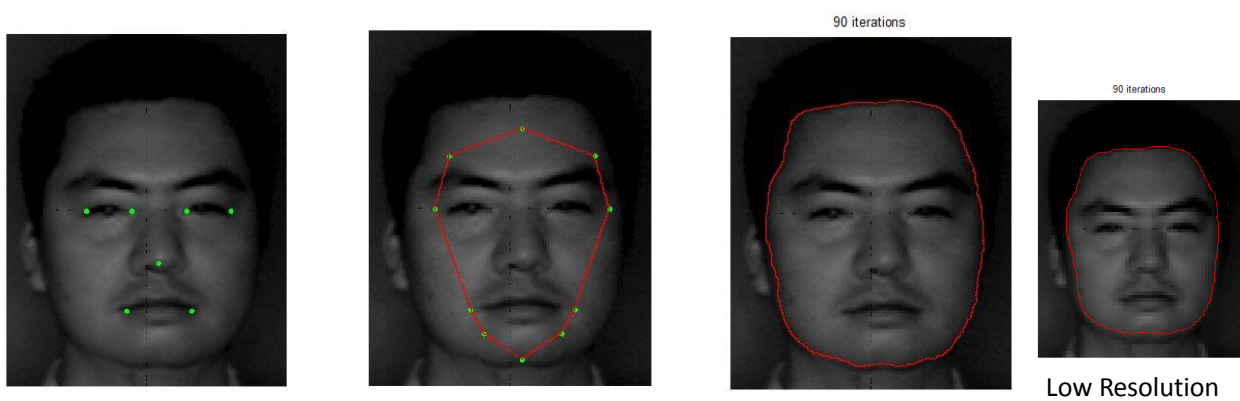
Test Case 1



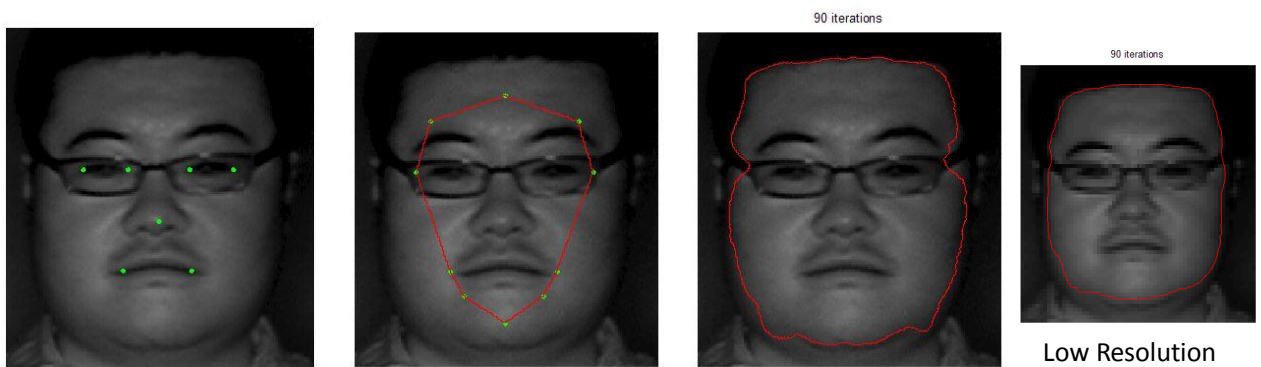
Test Case 2



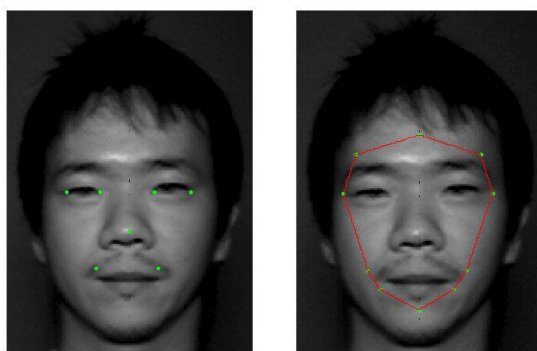
Test Case 3



Test Case 4



Test Case 5

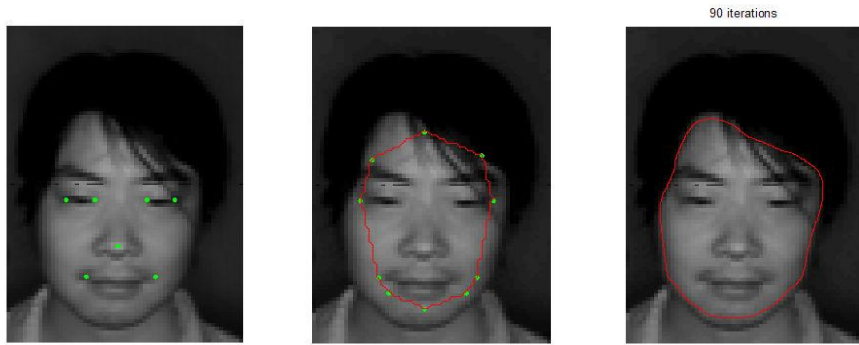




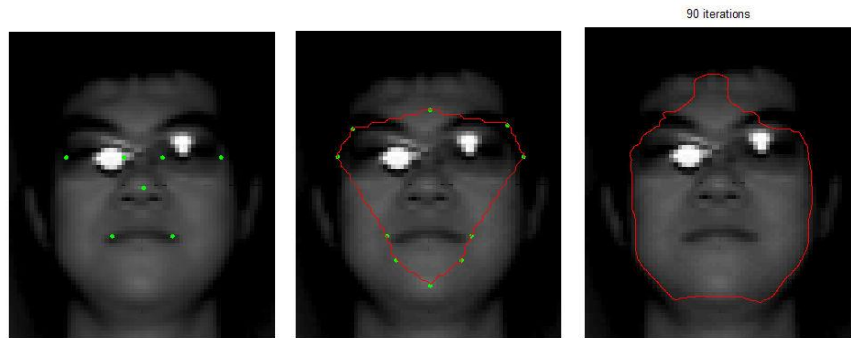
Test Case 6

Low Resolution

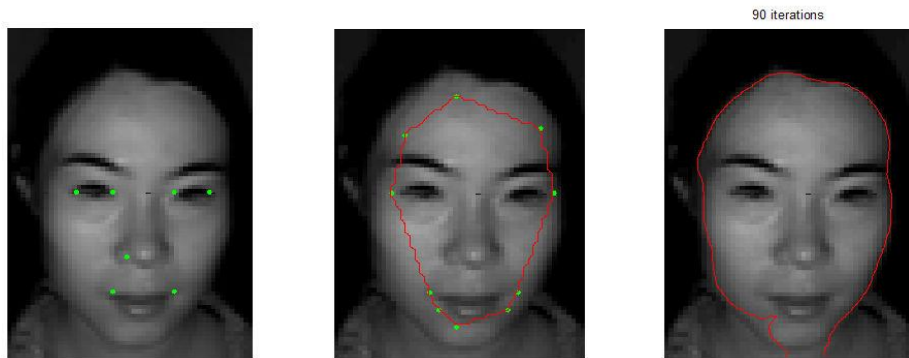
### 3. Non-frontal Test Cases (Low Resolution)



Test Case 7



Test Case 8



Test Case 9

#### **4. Conclusion**

- 1) It appears to perform robustly in the presence of weak boundaries, such as chin boundary.
- 2) Initial face contour should be inside the face region and the larger the better (time-saving).
- 3) Thick-border glasses have opposite impacts, which should be minimized.
- 4) Automatic detection of mouth corner positions is not accurate.
- 5) It significantly saves time if the input images are in low resolution ( $d_{eyes} = 20$  pixels), however the accuracy of face contour segmentation may decrease.
- 6) The algorithm should be improved to minimize deviations and failure cases.

#### **5. References**

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