

MULTI-VIEW REPRESENTATION BASED FACE SKETCH SYNTHESIS

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INTRODUCTION

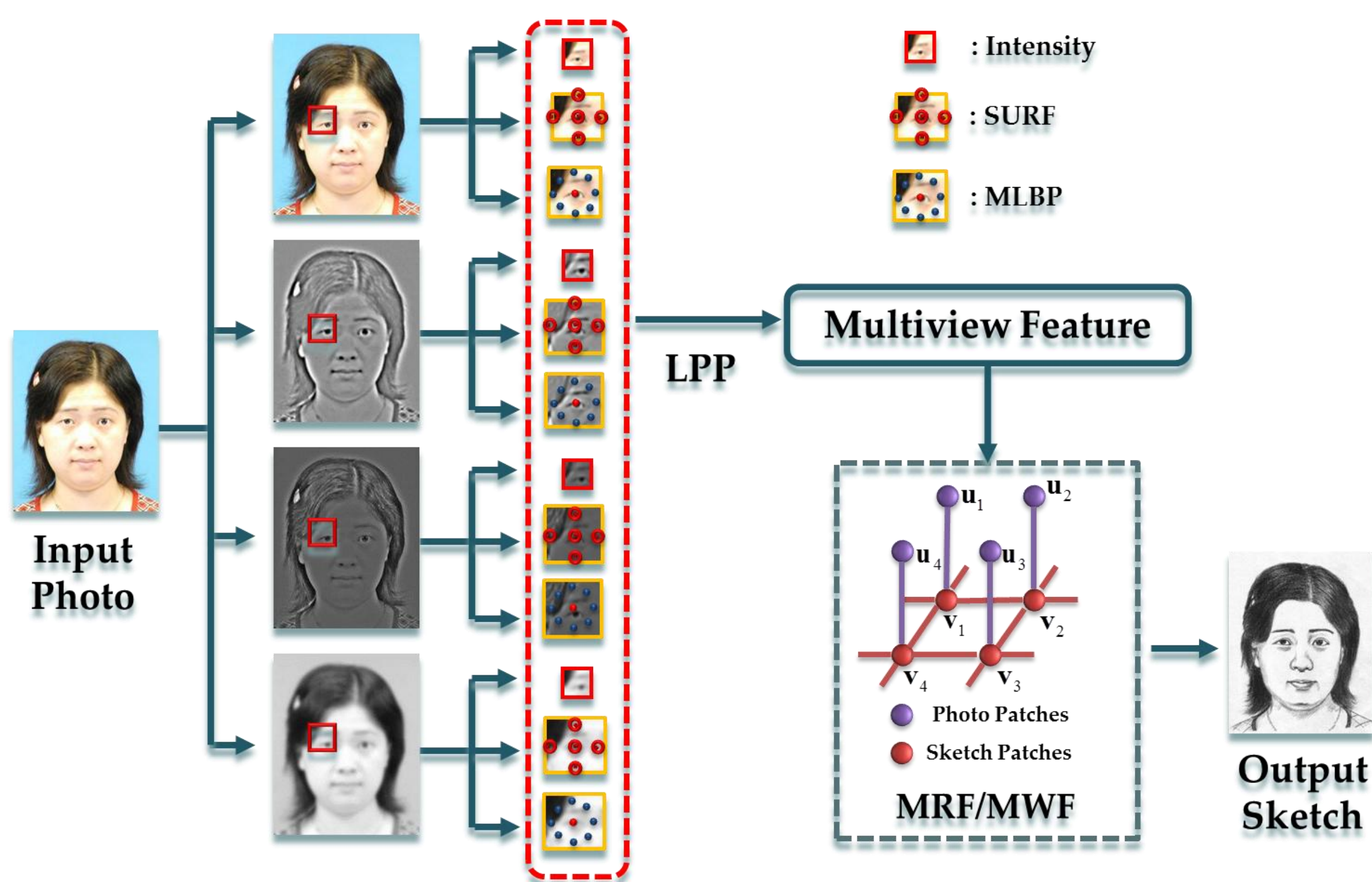
Definition: transformation of the photos to sketches.

Application: law enforcement and digital entertainment.

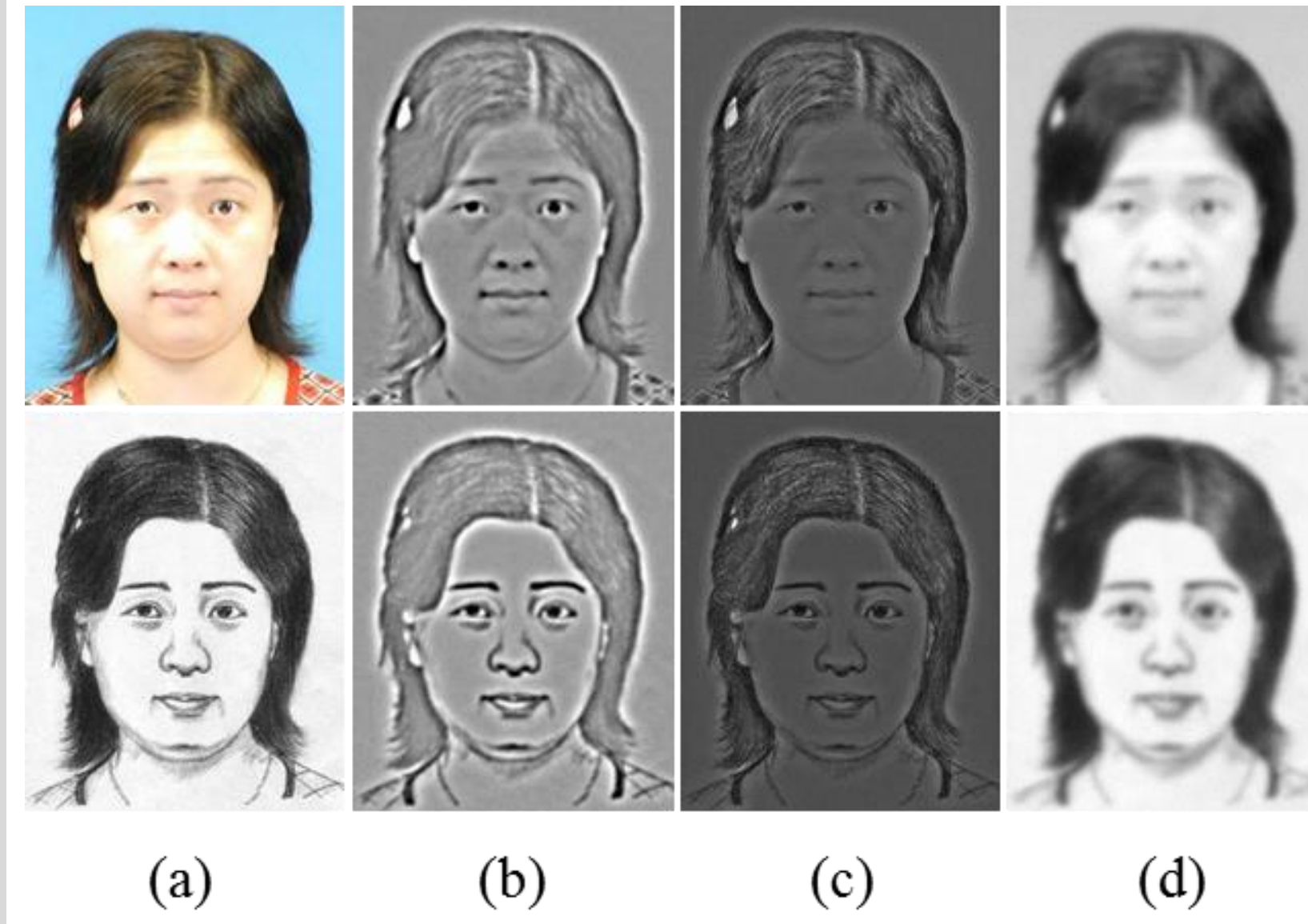
Main contributions:

- We propose an efficient and effective multi-view feature representation to measure the similarity of image patches;
- We apply the proposed approach in different traditional face sketch synthesis methods and demonstrate the effectiveness of the multi-view representation.

GENERAL FRAMEWORK

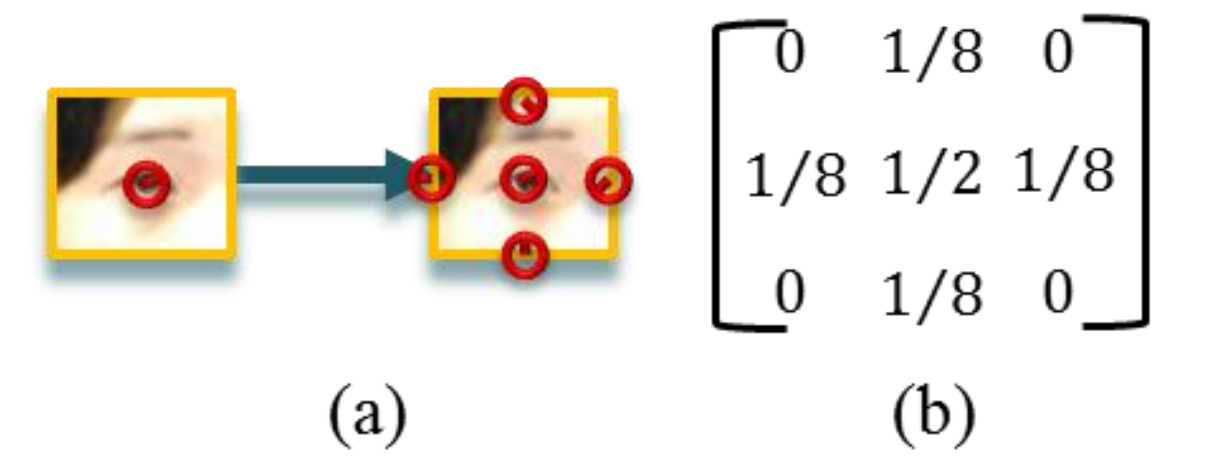


ILLUSTRATION



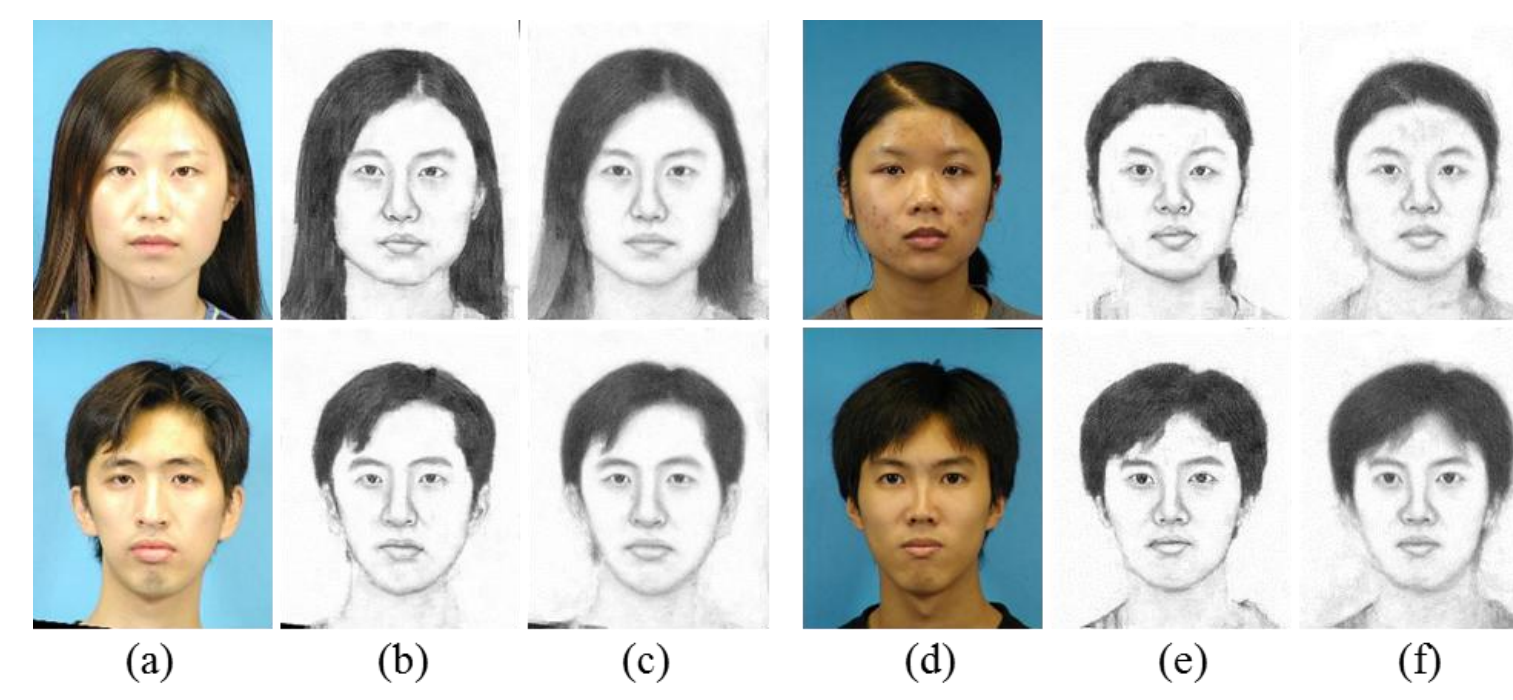
Examples of a face photo/sketch after being filtered.

(a) Original image; (b) DoG filter; (c) CSDN filter; (d) Gaussian filter.

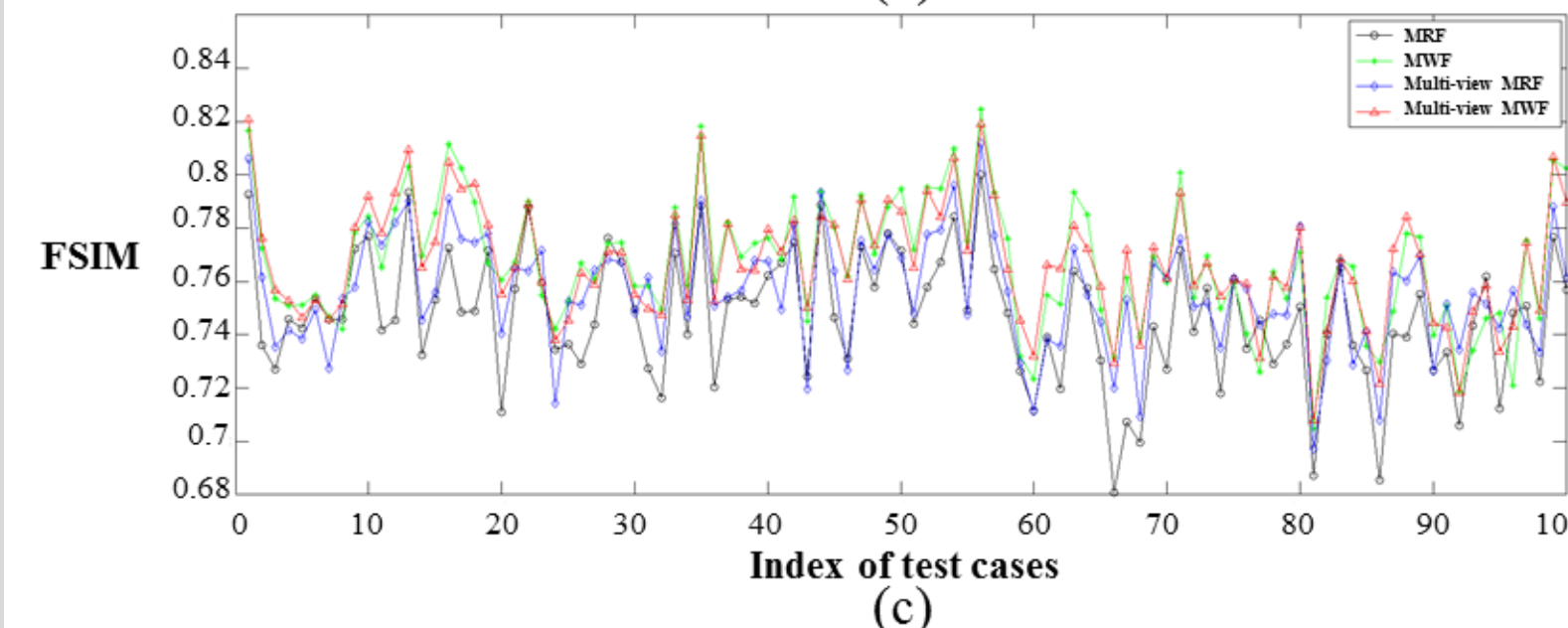
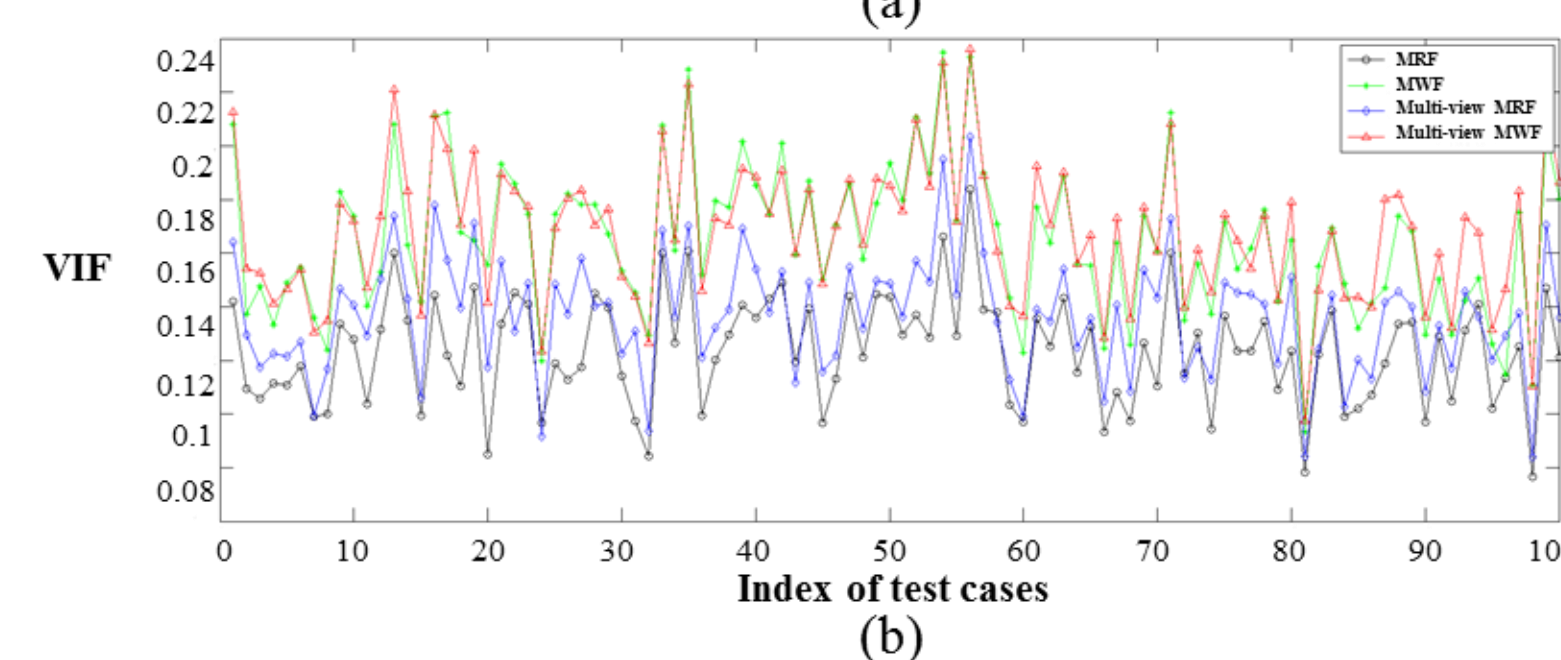
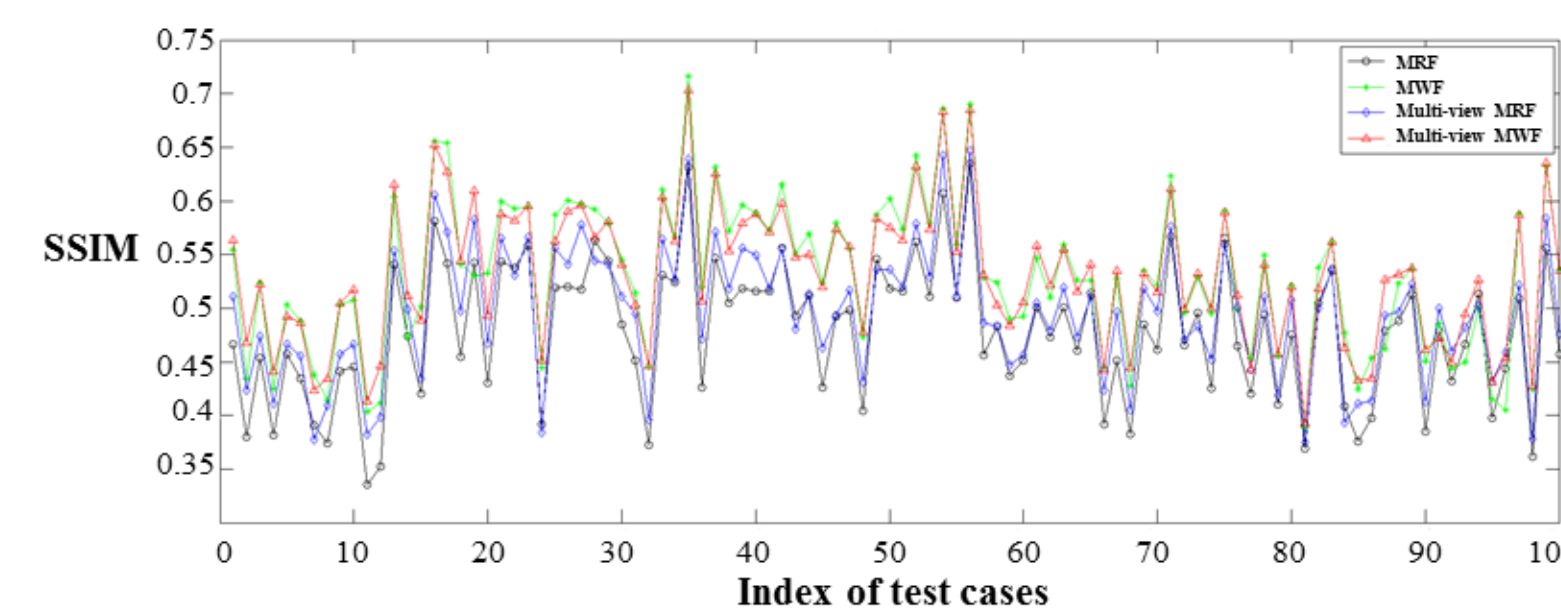


The extracted SURF feature with a template.
(a) Illustration of five position;
(b) The weighting template.

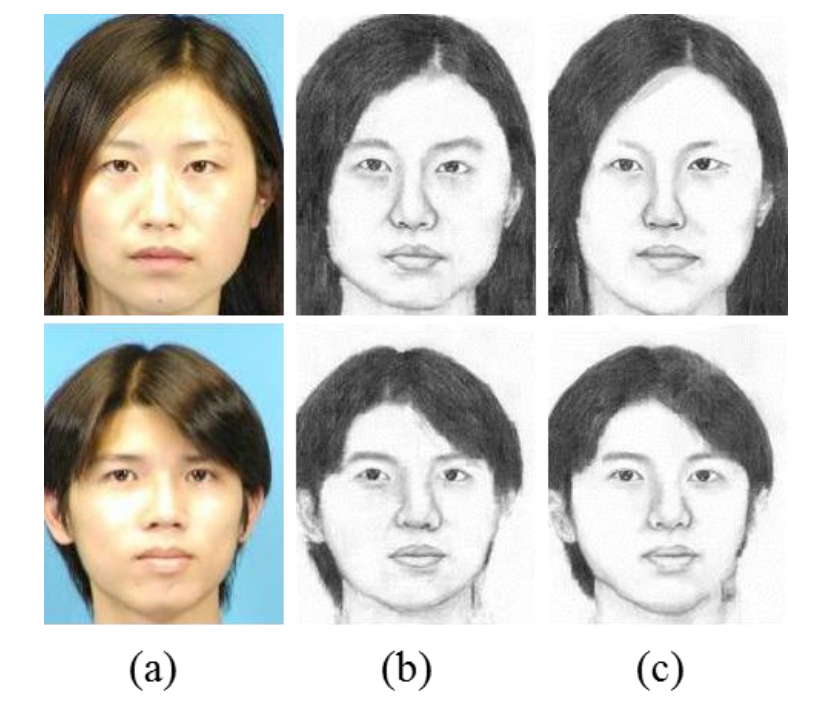
EXPERIMENTAL RESULTS



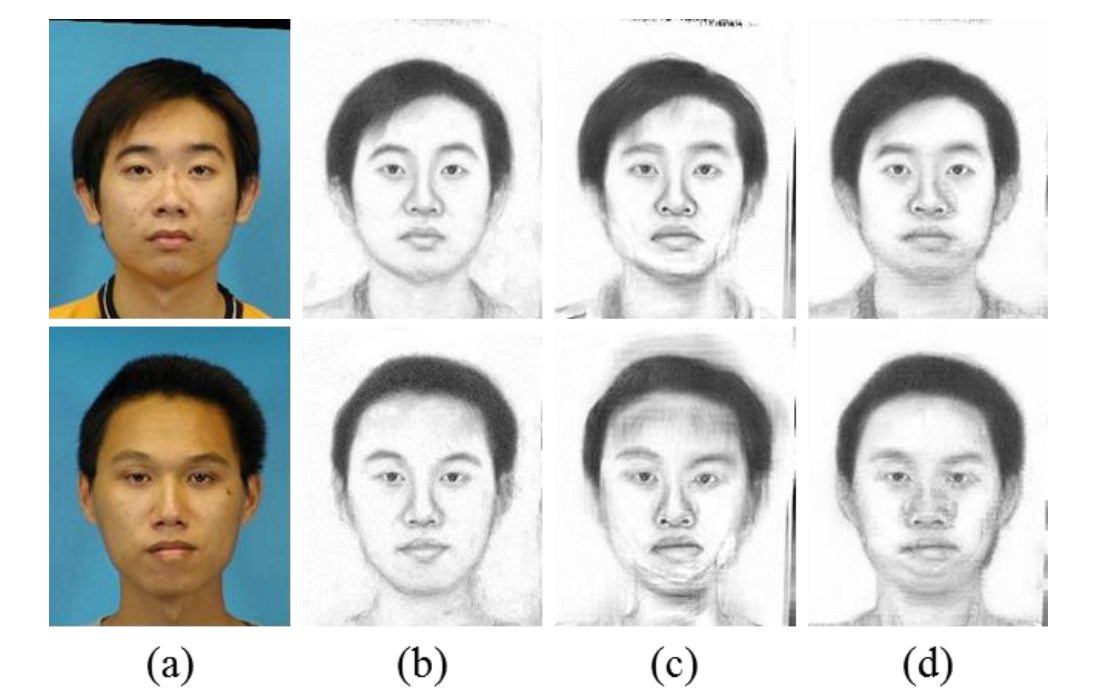
Synthesized sketches with multi-view MRF(b)(e) and multi-view MWF(c)(f).



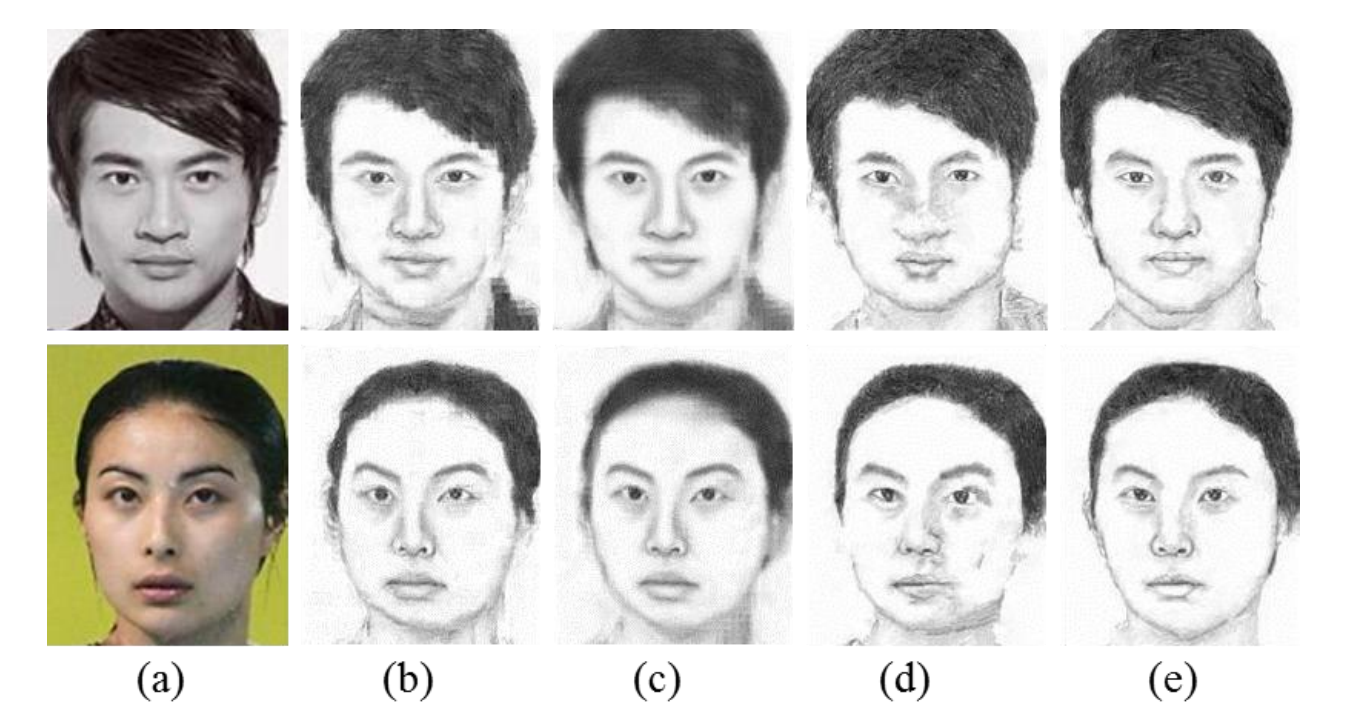
Comparison of FR-IQA values.



Comparison with traditional MRF (c).



Comparison with LLE (c) and traditional MWF (d).



Synthesized results on celebrity photos. (a) Input photos; (b) Multi-view MRF; (c) Multi-view MWF; (d) Traditional MRF; (e) Traditional MWF.

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