CLAIMS

1. A method for determining face image quality, comprising:

obtaining pose angle information and size information of a face in an image; and

obtaining quality information of the face in the image on the basis of the pose angle information and size information of the face;

wherein the obtaining quality information of the face in the image on the basis of the pose angle information and size information of the face comprises:

obtaining, according to the pose angle information of the face, a score of a pose angle of the face;

obtaining, according to the size information of the face, a score of a face size; and

obtaining, according to the score of the pose angle of the face and the score of the face size, a quality score of the face in the image;

wherein the obtaining, according to the size information of the face, the score of a face size comprises:

obtaining the score of the face size on the basis of at least one of length, width, or area of a face detection bounding box, the area of the face detection bounding box being obtained by a product of the length and width of face detection bounding box;

wherein the obtaining the score of the face size on the basis of at least one of length, width, or area of the face detection bounding box comprises:

selecting a smaller value min in the length and width of the face detection bounding box; and

obtaining, according to the smaller value min, the score Q_{rect} of the face size by calculation.

2. The method according to claim 1, wherein the obtaining the pose angle information of the face in the image comprises:

obtaining the face detection bounding box in the image and key point coordinates of the

face determined according to the face detection bounding box; and

obtaining, according to the key point coordinates of the face, the pose angle information of the face, the pose angle information of the face comprising a yaw angle of the face and a pitch angle of the face.

3. The method according to claim 2, wherein the obtaining the face detection bounding box in the image and key point coordinates of the face determined according to the face detection bounding box comprises:

performing face detection on the image;

obtaining the face detection bounding box; and

performing key point positioning on the face in the face detection bounding box;

obtaining the key point coordinates of the face.

4. The method according to any one of claims 2 to 3, wherein the obtaining the size information of the face in the image comprises:

obtaining, according to a size of the face detection bounding box, the size information of the face, the size of the face detection bounding box comprising length and/or width of the face detection bounding box.

5. The method according to claim 1, wherein the obtaining the score of a pose angle of the face according to the pose angle information of the face comprises:

obtaining, according to the yaw angle and pitch angle of the face, a score Q_{yaw} of the yaw angle yaw of the face and a score Q_{pitch} of the pitch angle $pitch$ of the face by calculation.

6. The method according to claim 1, wherein the obtaining, according to the score of the pose angle of the face and the score of the face size, the quality score of the face in the image comprises:

obtaining, according to a score of the yaw angle and a weight of the score of the yaw angle, a score of the pitch angle and a weight of the score of the pitch angle, and the score

of the face size and a weight of the score of the face size, the quality score of the face in the image by calculation, .

7. The method according to claim 6, wherein the weight of the score of the yaw angle is greater than the weight of the score of the pitch angle and the weight of the score of the face size.

8. The method according to any one of claims 1 to 7, wherein the method further comprises:

obtaining a confidence score of the key point coordinates, the confidence score of the key point coordinates being used for indicating accuracy of the key point coordinates of the face;

after obtaining the score of the pose angle of the face, the method further comprises:

correcting the score of the pose angle of the face by using the confidence score of the key point coordinates; and

the obtaining, according to the score of the pose angle of the face and the score of the face size, the quality score of the face in the image comprises:

obtaining, according to the corrected score of the pose angle of the face and the score of the face size, the quality score of the face in the image.

9. The method according to claim 8, wherein the correcting the score of the pose angle of the face by using the confidence score of the key point coordinates comprises:

determining a correction parameter a for the score Q_{yaw} of the yaw angle yaw of the face and the score Q_{pitch} of the pitch angle $pitch$ of the face by using the confidence score of the key point coordinates, and

respectively calculating product of the correction parameter a and Q_{yaw} as well as product of the correction parameter a and Q_{pitch}, the product of the correction parameter a and Q_{yaw} being used as a corrected score of the yaw angle and the product of the correction parameter a and Q_{pitch} being used as a corrected score of the pitch angle;

wherein in the case that the confidence score of the key point coordinates is smaller than a

predetermined value, a value of the a is a first value, in the case that the confidence score of the key point coordinates is greater than or equal to the predetermined value, the value of the a is a second value, and the first value is smaller than the second value.

10. The method according to any one of claims 1 to 9, wherein for at least one image in multiple images, the operations of obtaining pose angle information and size information of a face in the image and obtaining quality information of the face in the image on the basis of the pose angle information and size information of the face are respectively executed;

the method further comprises: selecting, according to the quality information of the face in the multiple images, at least one image with high face quality for face detection.

11. An apparatus for determining face image quality, comprising:

a first obtaining module, configured to obtain pose angle information and size information of a face in an image; and

a second obtaining module, configured to obtain quality information of the face in the image on the basis of the pose angle information and size information of the face;

wherein the second obtaining module comprises:

a second obtaining sub-module, configured to obtain, according to the pose angle information of the face, a score of the pose angle of the face;

a third obtaining sub-module, configured to obtain, according to the size information of the face, a score of a face size; and

a fourth obtaining sub-module, configured to obtain, according to the score of the pose angle of the face and the score of the face size, a quality score of the face in the image;

wherein the third obtaining sub-module is further configured to: obtain the score of the face size on the basis of at least one of length, width, or area of a face detection bounding box, the area of the face detection bounding box being obtained by the product of the length and width of face detection bounding box;

wherein the third obtaining sub-module is further configured to:

select a smaller value min in the length and width of the face detection bounding box;

and

obtain, according to the smaller value min, the score Q_{rect} of the face size by calculation.

12. The apparatus according to claim 11, wherein the first obtaining module comprises:

a face detection sub-module, configured to obtain the face detection bounding box in the image, the pose angle information of the face comprising a yaw angle of the face and a pitch angle of the face;

a key point detection sub-module, configured to obtain key point coordinates of the face determined according to the face detection bounding box; and

a first obtaining sub-module, configured to obtain, according to the key point coordinates of the face, the pose angle information of the face, the pose angle information of the face comprising the yaw angle and pitch angle of the face, and to obtain, according to a size of the face detection bounding box, the size information of the face, the size of the face detection bounding box comprising length and/or width of the face detection bounding box.

13. The apparatus according to claim 11, wherein the fourth obtaining sub-module is further configured to obtain, according to a score of the yaw angle and a weight of the score of the yaw angle, a score of the pitch angle and a weight of the score of the pitch angle, and the score of the face size and a weight of the score of the face size, the quality score of the face in the image by calculation, wherein the weight of the score of the yaw angle is greater than the weight of the score of the pitch angle and the weight of the score of the face size.

14. An electronic device, comprising:

a memory, configured to store executable instructions; and a processor, configured to communicate with the memory to execute the executable instructions so as to complete the operations of the method according to any one of claims 1 to 10.

15. A computer storage medium, configured to store computer-readable instructions, wherein when the instructions are executed, the operations of the method according to any one of claims 1 to 10 are implemented.