

CLAIMS

What is claimed is:

1. An information processing method, comprising:

acquiring an information processing application transmitted by a first client, and executing a predetermined command in accordance with a timer-based task mechanism to transmit a first prompt message for reviewing the information processing application to a second client;

identifying, in response to an operation instruction on the second client, the information processing application as a target information processing application, the operation instruction being triggered when a user of the second client determines that an amount of resources to be transferred offline from a user of the first client is received at a first target address;

acquiring an information processing request for the target information processing application, and processing the information processing request, the information processing request being transmitted by the first client in accordance with an asynchronous mechanism; and

feeding, in response to a polling initiated by the first client, a processing result of the information processing request back to the first client when said processing the information processing request is completed;

further comprising, prior to determining whether the amount of information to be processed is greater than or equal to the target total quantity of information to be processed:

acquiring a face image of the user of the first client;

performing a face detection on the face image and cropping a face region image based on bounding box regression;

determining whether a face in the face region image is occluded, and when the face in the face region image is occluded, complementing the face in the face region

image using a ridge regression method to obtain a target face region image;

locating key points of the face on the target face region image using a pre-trained multi-task cascaded convolutional neural network, to obtain position information of the key points of the face, the key points of the face comprising a left corner of a mouth, a right corner of the mouth, a nose, a center point of a left eye, and a center point of a right eye;

obtaining a first affine transformation matrix $T1$ based on the position information of the left corner of the mouth, the position information of the right corner of the mouth, and an inclination angle of a connecting line between the left corner of the mouth and the right corner of the mouth;

performing an affine transformation on the target face region image based on the first affine transformation matrix $T1$ to obtain a first face region image;

obtaining a second affine transformation matrix $T2$ based on the position information of the center point of the left eye, the position information of the center point of the right eye, and an inclination angle of a connecting line between the center point of the left eye and the center point of the right eye;

performing an affine transformation on the first face region image based on the second affine transformation matrix $T2$ to obtain a second face region image; and

inputting the second face region image into a pre-trained face recognition model for feature extraction, and determining the target total quantity of information to be processed based on extracted features.

2. The method according to claim 1, wherein said executing the predetermined command in accordance with the timer-based task mechanism to transmit the first prompt message for reviewing the information processing application to the second client comprises:

executing the predetermined command in accordance with the timer-based task mechanism to query all information processing applications to be reviewed, comprising the information processing application, from a database;

statistically analyzing the information processing applications to be reviewed to

obtain summary data; and

transmitting the first prompt message comprising the summary data to the second client.

3. The method according to claim 1, wherein the information processing application comprises the amount of resources to be transferred, and the amount of resources to be transferred is calculated based on an amount of information to be processed as submitted by the first client, and wherein the method further comprises, prior to acquiring the information processing application transmitted by the first client:

acquiring the amount of information to be processed as submitted by the first client; and

determining whether the amount of information to be processed is greater than or equal to a target total quantity of information to be processed; and

whether the amount of information to be processed is greater than or equal to a target total quantity of information to be processed, transmitting to the first client a second prompt message indicating that the amount of information to be processed is greater than or equal to the target total quantity of information to be processed, or otherwise locking the amount of information to be processed from the target total quantity of information to be processed, the second prompt message being used to prompt the user of the first client to modify the amount of information to be processed, and

wherein the method further comprises, subsequent to identifying the information processing application as the target information processing application:

updating the target total quantity of information to be processed based on the amount of information to be processed and the target total quantity of information to be processed.

4. The method according to claim 3, wherein the face recognition model comprises a backbone network part, an attention mechanism, and a fully connected layer, and wherein said inputting the second face region image into the pre-trained face recognition model for feature extraction and determining the target total quantity

of information to be processed based on the extracted features comprises:

inputting the second face region image into the backbone network part for feature extraction, to output a first feature map;

inputting the first feature map into the attention mechanism for convolution processing at a plurality of 1*1 convolutional layers, to output a second feature map having a same width and a same height as the first feature map;

multiplying the width and height of the first feature map with the width and height of the second feature map, respectively, to obtain a third feature map, and inputting the third feature map into the fully connected layer for classification, to output a first face feature vector of the face image; and

acquiring a matching degree between the first face feature vector and second face feature vectors of a plurality of users stored in a database, and determining a total quantity of information to be processed for a user having a highest matching degree among the plurality of users as the target total quantity of information to be processed, each of the plurality of users having a corresponding total quantity of information to be processed.

5. The method according to any one of claims 1 to 3, wherein said processing the information processing request comprises:

calculating a processing cost of a current information processing based on a predetermined unit amount of resources of information processed in the current information processing and the amount of information to be processed;

calculating a growth of resource for the current information processing based on a current unit amount of resources of the information processed in the current information processing, the predetermined unit resource amount, and the amount of information to be processed in accordance with: $S=(P1-P2)*Q$, where S represents the growth of resource, P1 represents the current unit amount of resources, P2 represents the predetermined unit amount of resources, and Q represents the amount of information to be processed;

calculating an amount of additional resources for the current information processing based on the growth of resource in accordance with: $P=(S/M*R-T)*M$,

where P represents the amount of additional resources, M represents a predetermined time, R represents a first predetermined parameter, and T represents a second predetermined parameter;

calculating an amount of resources actually deserved for the current information processing based on the processing cost and the amount of additional resources in accordance with: $N=(C+P)*E$, where N represents the amount of resources actually deserved, C represents the processing cost, and E represents a third predetermined parameter;

calculating an amount of resources to be returned or an amount of resources to be supplemented for the current information processing based on the amount of resources to be transferred and the amount of resources actually deserved;

transferring the amount of resources to be returned to a second target address when the amount of resources to be returned is calculated, or transmitting to the first client a third prompt message comprising the amount of resources to be supplemented when the amount of resources to be supplemented is calculated, the third prompt message being used to prompt the user of the first client to transfer the amount of resources to be supplemented to the first target address; and

identifying the information processing application as a completed information processing application.

6. The method according to any one of claims 1 to 3, further comprising, subsequent to acquiring the information processing request for the target information processing application transmitted by the first client in accordance with the asynchronous mechanism:

determining whether a submission time of the information processing request is within a predetermined window period for information processing;

when the submission time of the information processing request is within the predetermined window period for information processing, transmitting a fourth prompt message to the first client, the fourth prompt message being used to remind the user of the first client of confirming a submission of the information processing request;

determining, in response to a signal indicating a confirmation of the submission as triggered on the first client, whether a time point at which the signal indicating the confirmation of the submission is triggered is within the window period for information processing; and

when the time point at which the signal indicating the confirmation of the submission is triggered is within the window period for information processing, feeding back to the first client a message indicating that the information processing request is submitted successfully, or otherwise feeding back to the first client a message indicating that a current information processing is not within the window period for information processing.

7. An information processing apparatus, comprising:

a first acquiring module configured to acquire an information processing application transmitted by a first client, and execute a predetermined command in accordance with a timer-based task mechanism to transmit a first prompt message for reviewing the information processing application to a second client;

a first responding module configured to identify, in response to an operation instruction on the second client, the information processing application as a target information processing application, the operation instruction being triggered when a user of the second client determines that an amount of resources to be transferred offline from a user of the first client is received at a first target address;

a second acquiring module configured to acquire an information processing request for the target information processing application, and process the information processing request, the information processing request being transmitted by the first client in accordance with an asynchronous mechanism; and

a second responding module configured to feed, in response to a polling initiated by the first client, a processing result of the information processing request back to the first client when said processing the information processing request is completed;

further comprising, prior to determining whether the amount of information to be processed is greater than or equal to the target total quantity of information to be processed:

acquiring a face image of the user of the first client;

performing a face detection on the face image and cropping a face region image based on bounding box regression;

determining whether a face in the face region image is occluded, and when the face in the face region image is occluded, complementing the face in the face region image using a ridge regression method to obtain a target face region image;

locating key points of the face on the target face region image using a pre-trained multi-task cascaded convolutional neural network, to obtain position information of the key points of the face, the key points of the face comprising a left corner of a mouth, a right corner of the mouth, a nose, a center point of a left eye, and a center point of a right eye;

obtaining a first affine transformation matrix $T1$ based on the position information of the left corner of the mouth, the position information of the right corner of the mouth, and an inclination angle of a connecting line between the left corner of the mouth and the right corner of the mouth;

performing an affine transformation on the target face region image based on the first affine transformation matrix $T1$ to obtain a first face region image;

obtaining a second affine transformation matrix $T2$ based on the position information of the center point of the left eye, the position information of the center point of the right eye, and an inclination angle of a connecting line between the center point of the left eye and the center point of the right eye;

performing an affine transformation on the first face region image based on the second affine transformation matrix $T2$ to obtain a second face region image; and

inputting the second face region image into a pre-trained face recognition model for feature extraction, and determining the target total quantity of information to be processed based on extracted features.

8. An electronic device, comprising:

- an input device;
- an output device;

a computer storage medium having one or more instructions stored thereon; and
a processor configured to execute the one or more instructions; wherein the one or more instructions are configured to be loaded by the processor to implement the method according to any one of claims 1 to 6.

9. A computer storage medium, having one or more instructions stored thereon, wherein the one or more instructions are configured to be loaded by a processor to implement the method according to any one of claims 1 to 6.