

WHAT IS CLAIMED IS:

1. A method for visual searching based on cloud service, comprising:

receiving, from a client, an image recognition request of cloud service, the request containing image data;

forwarding, according to a set classified forwarding rule, the image data to a corresponding classified visual search service;

recognizing, by the respective corresponding classified visual search services, corresponding classified type information in the image data, and determining the name of the image data in accordance with the respective classified type information, and obtaining a classified visual search result, the result including the classified type information and the corresponding name; and

summarizing and sending, to a client, the classified visual search result of the corresponding classified visual search service.

2. The method of claim 1, further comprising, after the forwarding and before the recognizing, the step of: detecting, by the respective corresponding classified visual search service, to determine whether the image data contains the corresponding classified type information; if yes, detect the position information of the classified type information in the image data, and recognize according to the position information to determine a corresponding name.

3. The method of claim 1, wherein the forwarding comprises: detecting the classified type information contained in the image data, and forwarding the image data to the classified visual search service corresponding to the detected image data.

4. The method of claim 1, further comprising, before the forwarding, the step of: recognizing the respective classified type information contained in the request, and the position information of the respective classified type information in the image data; and

setting a classified forwarding rule according to the recognized respective classified type information and the position information, and forwarding, to the classified visual search service in accordance with the recognized classified type information, the image data the corresponding position information.

5. The method of claim 4, wherein the setting comprises:

if the image recognition request of cloud service contains the classified type information, then forward the image data to the respective classified visual search service in accordance with the classified type information; and

if the image recognition request of cloud service does not contain the classified type information, then forward the image data to all the visual search services.

6. The method of claim 1, further comprising: after the receiving, the step of: preprocessing the image recognition request of cloud service, the preprocessing comprising operation of security verification.

7. The method of claim 1, further comprising, after the determining and before the summarizing and sending, the step of: retrieving, with the respective classified visual search service, detailed information relevant to the specified type according to the recognized classified type information and the name; the classified visual search result comprising the retrieved detailed information.

8. The method of claim 1, wherein the classified visual search service comprises any one or any combination of the followings: object visual search service, text visual search service, face visual search service, barcode visual search service, scenery visual search service, Logo visual search service, book visual search service, and CD visual search service, and the classified type information comprises any one or any combination of the followings: object, text, face, barcode, scenery, Logo, books, and CD.

9. A visual search system based on cloud service, comprising:

a server, comprising:

a cloud service access device, configured to receive, from a client, an image recognition request of cloud service containing image data, and forward, according to a set classified forwarding rule, the image data to a corresponding classified visual search service in a classified visual service system;

a classified visual service system, configured to recognize, with the respective corresponding classified visual search service, corresponding classified type information in the image data, determine the name of the image data in accordance with the respective classified type information to obtain a classified visual search result, the result containing the classified type information and the corresponding name; and

a visual search results summarization device, configured to send, upon summarization, the respective corresponding classified visual search results to a client.

10. The system of claim 9, further comprising:

an image recognition service device connected between the cloud service access device and the classified visual service system, configured to recognize the respective classified type information contained in the image data of the image recognition request of cloud service and the position information of the respective classified type information in the image data, and set a classified forwarding rule according to the recognized respective classified type information and the position information, and forward, to the corresponding classified visual search service, the image data and the position information in accordance with the recognized classified type information.

11. The system of claim 10, wherein the setting comprises:

if the image recognition request of cloud service contains the classified type information, then forward the image data to the respective classified visual search

service in accordance with the classified type information; and

if the image recognition request of cloud service does not contain the classified type information, then forward the image data to all the visual search services.

12. The system of claim 9, wherein the classified visual search service system is configured to determine, with the respective classified visual search service, whether the image data contains the corresponding classified type information; if yes, then detect the position information of the classified information in the image data, and recognize, according to the position information, to determine the corresponding name.

13. The system of claim 9, further comprising an image recognition service device arranged in the client, configured to detect the respective classified type information contained in the image and the position information of the respective classified type information in the image data, and sending, to the server, the image recognition request of cloud service according to the detected classified type information, the request comprising the recognized classified type information, the corresponding position information and the image data of the image.

14. The system of claim 9, wherein the cloud service access device is further configured to perform preprocessing operation to the image recognition request of cloud service, the preprocessing comprising operation of security verification.

15. The system of claim 9, wherein the classified visual service system is further configured to retrieve, with the respective classified visual search service, detailed information relevant to the specified type according to the recognized classified type information and the name; the classified visual search result comprising the retrieved detailed information

16. The system of claim 9, wherein the classified visual search service comprises any one or more of the followings: object visual search service, text visual search

service, face visual search service, barcode visual search service, scenery visual search service, Logo visual search service, book visual search service, and CD visual search service, and the classified type information comprises any one or more of the followings: object, text, face, barcode, scenery, Logo, books, and CD.

17. The system of claim 9, further comprising the client.

18. A non-transitory computer-readable storage medium comprising an executable program to execute a method for visual searching based on cloud service, the method comprising:

receiving, from a client, an image recognition request of cloud service, the request containing image data;

forwarding, according to set classified forwarding rule, the image data to a corresponding classified visual search service;

recognizing, by the respective corresponding classified visual search services, corresponding classified type information in the image data, and determining the name of the image data in accordance with the respective classified type information, and obtaining a classified visual search result, the result including the classified type information and the corresponding name; and

summarizing and sending, to a client, the classified visual search result of the corresponding classified visual search service.

19. The non-transitory computer-readable storage medium of claim 18, wherein the method further comprises, after the forwarding and before the recognizing, the step of: detecting, by the respective corresponding classified visual search service, to determine whether the image data contains the corresponding classified type information; if yes, detect the position information of the classified type information in the image data, and recognize according to the position information to determine a corresponding name.

20. The non-transitory computer-readable storage medium of claim 18, wherein the forwarding comprises: detecting the classified type information contained in the image data, and forwarding the image data to the classified visual search service corresponding to the detected image data.

21. The non-transitory computer-readable storage medium of claim 19, wherein the method further comprises, before the forwarding, the step of:

recognizing the respective classified type information contained in the request, and the position information of the respective classified type information in the image data; and

setting a classified forwarding rule according to the recognized respective classified type information and the position information, and forwarding, to the classified visual search service in accordance with the recognized classified type information, the image data the corresponding position information.

22. The non-transitory computer-readable storage medium of claim 21, wherein the setting comprises:

if the image recognition request of cloud service contains the classified type information, then forward the image data to the respective classified visual search service in accordance with the classified type information; and

if the image recognition request of cloud service does not contain the classified type information, then forward the image data to all the visual search services.

23. The non-transitory computer-readable storage medium of claim 19, wherein the method further comprises, after the receiving, the step of: preprocessing the image recognition request of cloud service, the preprocessing comprising operation of security verification.

24. The non-transitory computer-readable storage medium of claim 19, wherein the method further comprises, after the determining and before the summarizing and

ending, the step of: retrieving, with the respective classified visual search service, detailed information relevant to the specified type according to the recognized classified type information and the name; the classified visual search result comprising the retrieved detailed information.

CLAIMS

1. A method for visual searching based on cloud service, comprising:
 - receiving, from a client, and image recognition request of cloud service, the request containing image data;
 - forwarding, according to a set classified forwarding rule, the image data to a plurality of classified visual search services, each of the said plurality of classified visual search services comprises a specific classified type information, the classified type information including but not limited to object, text, face, barcode, scenery, Logo, book, and CD,
 - detecting by, each of the plurality of classified visual search services, whether the image data contains corresponding classified type information,
 - recognizing by, the respective classified visual search service, the detected corresponding classified type information in the image data,
 - determining by the respective classified visual search service, the name of the detected classified type information in the image data, and thereby assigning a corresponding name to the detected corresponding classified type information to generate a classified visual search result, the result including the classified type information and the corresponding name; and
 - summarizing and sending, to a client, the classified visual search result of the corresponding classified visual search service.
2. The method of claim 1, wherein the forwarding comprises: detecting the classified type information contained in the image data, and forwarding the image data to the classified visual search service corresponding to the detected image data.
3. The method of claim 1, further comprising, before the forwarding, the step of :
 - recognizing the classified type information contained in the request, and the position information of the respective classified type information in the image data;
 - setting a classified forwarding rule according to the recognized respective classified visual search service in accordance with the recognized classified type information, the image data the corresponding position information.

4. The method of claim 3, wherein the setting comprises:
 - if the image recognition request of cloud service contains the classified type information, then forward the image data to the respective classified visual search service in accordance with the classified type information; and
 - if the image recognition request of cloud service does not contain the classified type information, then forward the image data to all the visual search services.
5. The method of claim 1, further comprising—the step of preprocessing the image recognition request of cloud service before forwarding to the plurality of classified visual search services, the preprocessing comprising operation of security verification.
6. The method of claim 1, further comprising—the step of: retrieving, with the respective classified visual search service, the detailed information relevant to the specified type according to the recognized classified type information and the name; the classified visual search result comprising the retrieved detailed information.
7. A visual search system based on cloud service, comprising:
 - a server, comprising:
 - a cloud service access device, configured to receive, from a client, an image recognition request of cloud service containing image data, and forward, according to a set classified forwarding rule, the image data to a corresponding classified visual search service in a classified visual service system;
 - a classified visual service system comprising a plurality of classified visual search services, each of the classified visual search services has a specific classified type information and is configured to recognize, corresponding classified type information in the image data, determine the name of the image data in accordance with the respective classified type information to obtain a classified visual search result, the result containing the classified type information and the corresponding name; and
 - a visual search results summarization device, configured to send, upon summarization, the respective corresponding classified visual search results to a client.
8. The system of claim-7, further comprising:
 - an image recognition service device connected between the cloud service access device and the classified visual service system, configured to recognize the

respective classified type information contained in the image data of the image recognition request of cloud service and the position information of the respective classified type information in the image data, and set a classified forwarding rule according to the recognized respective classified type information and the position information, and forward, to the corresponding classified visual search service, the image data and the position information in accordance with the recognized classified type information.

9. The system of claim 8, wherein the setting comprises:

if the image recognition request of cloud service contains the classified type information, then forward the image data to the respective classified visual search service in accordance with the classified type information; and

if the image recognition request of cloud service does not contain the classified type information, then forward the image data to all the visual search services.

10. The system of claim 7, wherein the classified visual search service system is configured to determine, with the respective classified visual search service, whether the image data contains the corresponding classified type information; if yes, then detect the position information of the classified information in the image data, and recognize, according to the position information, to determine the corresponding name.

11. The system of claim 7, further comprising an image recognition service device, arranged in the client, configured to detect the respective classified type information contained in the image and the position information of the respective classified type information in the image data, and sending, to the server, the image recognition request of cloud service according to the detected classified type information, the request comprising the recognized classified type information, the corresponding position information and the image data of the image.

12. The system of claim 7, wherein the cloud service access device is further configured to perform preprocessing operation to the image recognition request of cloud service, the preprocessing comprising operation of security verification.

13. The system of claim 7, wherein the classified visual service system is further configured to retrieve, with the respective classified visual search service, detailed information relevant to the specified type according to the recognized classified type information and the same; the classified visual search result comprising the retrieved detailed information.

14. The system of claim 7, wherein the classified type information including but not limited to object, text, face, barcode, scenery, Logo, book, and CD.

15. The system of claim 7, further comprising the client.

16. A non-transitory computer readable storage medium comprising an executable program to execute a method for visual searching based on cloud service, the method comprising:

receiving, from a client, and image recognition request of cloud service, the request containing image data;

forwarding, according to a set classified forwarding rule, the image data to a plurality of classified visual search services, each of the said plurality of classified visual search services comprises a specific classified type information, the classified type information including but not limited to object, text, face, barcode, scenery, Logo, book, and CD,

detecting by, each of the plurality of classified visual search services, whether the image data contains corresponding classified type information, recognizing by, the respective classified visual search service, the detected corresponding classified type information in the image data,

determining by the respective classified visual search service, the name of the detected classified type information in the image data, and thereby assigning a corresponding name to the detected corresponding classified type information to generate a classified visual search result, the result including the classified type information and the corresponding name; and

summarizing and sending, to a client, the classified visual search result of the corresponding classified visual search service.

17. The non-transitory computer-readable storage medium of claim 16, wherein the forwarding comprises: detecting the classified type information contained in the image data, and forwarding the image data to the classified visual search service corresponding to the detected image data.

18. The non-transitory computer-readable storage medium of claim 16, wherein the method further comprises, before the forwarding, the step of:

recognizing the respective classified type information contained in the request, and the position information of the respective classified type information in the image data; and

setting a classified forwarding rule according to the recognized respective classified type information and the position information, and forwarding, to the classified visual search service in accordance with the recognized classified type information, the image data the corresponding position information.

19. The non-transitory computer-readable storage medium of claim 18, wherein the settling comprises:

if the image recognition request of cloud service contains the classified type information, then forward the image data to the respective classified visual search service in accordance with the classified type information; and

if the image recognition request of cloud service does not contain the classified type information, the forward the image data to all the visual search services.

20. The non-transitory computer-readable storage medium of claim 16, wherein the method comprises, after the receiving, the step of: preprocessing the image recognition request of cloud service, the preprocessing comprising operation of security verification.

21. The non-transitory computer-readable storage medium of claim 16, wherein the method further comprises, after the determining and before the summarizing and sending, the step of: retrieving, with the respective classified visual search service, detailed information relevant to the specified type according to the recognized classified type information and the name; the classified visual search result comprising the retrieved detailed information.