

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6161146

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
JUN ZHOU	03/02/2020
YONGMING DING	09/17/2018
SHENQUAN QU	09/17/2018
RECEIVING PARTY DATA	
Name:	ALIBABA GROUP HOLDING LIMITED
Street Address:	FOURTH FLOOR, ONE CAPITAL PLACE
Internal Address:	PO BOX 847
City:	GRAND CAYMAN
State/Country:	CAYMAN ISLANDS
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16132264
CORRESPONDENCE DATA	
Fax Number:	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	509-324-9256
Email:	amandas@leehayes.com
Correspondent Name:	LEE & HAYES, P.C.
Address Line 1:	601 W. RIVERSIDE AVENUE
Address Line 2:	SUITE 1400
Address Line 4:	SPOKANE, WASHINGTON 99201
ATTORNEY DOCKET NUMBER:	AB1-0653US
NAME OF SUBMITTER:	AMANDA SASSER
SIGNATURE:	/Amanda Sasser/
DATE SIGNED:	06/18/2020
Total Attachments: 7	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial Number
Filing Date
Inventorship Qu et al.
Assignee Alibaba Group Holding Limited
Attorney's Docket No. AB1-0653US
Client Docket No. PCT7332US
Title: Automatic Multi-Threshold Feature Filtering Method and Apparatus

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

Shenquan Qu
c/o Alibaba Group Legal Department
5/F, Building 3, No.969 West Wen Yi Road,
Yu Hang District, Hangzhou, China. 311121

Jun Zhou
c/o Alibaba Group Legal Department
5/F, Building 3, No.969 West Wen Yi Road,
Yu Hang District, Hangzhou, China. 311121

Yongming Ding
c/o Alibaba Group Legal Department
5/F, Building 3, No.969 West Wen Yi Road,
Yu Hang District, Hangzhou, China. 311121

Assignee:

Alibaba Group Holding Limited
Fourth Floor, One Capital Place
P.O. Box 847
Grand Cayman
Cayman Islands

AGREEMENT

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled
“ Automatic Multi-Threshold Feature Filtering Method and Apparatus” for which:

☐ a provisional application for United States Letters Patent was filed on _____ and
was given U.S. Serial No. _____ and/or

☒ a foreign priority Chinese patent application was filed on 17 March 2016 and was given CN Patent Application Serial No. 201610154296.1and/or

☒ a PCT international application for was filed on 03 March 2017 and was given PCT Serial No. PCT/CN2017/075517and/or

☒ a non-provisional application for United States Letters Patent was:

☒ filed on 14 September 2018 and was given U.S. Serial No. 16/132,264; or filed concurrently herewith. Assignors hereby authorize and request ASSIGNEE's legal representatives, of Lee & Hayes, PLLC, 601 W Riverside Ave, Suite 1400, Spokane, Washington 99201, who are associated with customer number 29150, to insert in the caption above the serial number and filing date of the patent application when known.

WHEREAS, Alibaba Group Holding Limited (hereinafter referred to as ASSIGNEE), a corporation of Cayman Islands having a place of business at Fourth Floor, One Capital Place, P.O. Box 847, Grand Cayman, Cayman Islands, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefore in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE, the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S)

had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore.

<u>Shenquan Qu</u>	<u>Witness Signature</u>
<u>Date (mm/dd/yyyy)</u>	<u>Name (printed)</u>
	<u>Date (mm/dd/yyyy)</u>
<u>Jun Zhou</u>	<u>崔卿</u>
<u>Jun Zhou</u>	<u>Witness Signature</u>
<u>2020.3.2</u>	<u>崔卿</u>
<u>Date (mm/dd/yyyy)</u>	<u>Name (printed)</u>
	<u>2020.3.2</u>
	<u>Date (mm/dd/yyyy)</u>
<u>Yongming Ding</u>	<u>Witness Signature</u>
<u>Date (mm/dd/yyyy)</u>	<u>Name (printed)</u>
	<u>Date (mm/dd/yyyy)</u>

**SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY
OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)**

Title of Invention	Automatic Multi-Threshold Feature Filtering Method and Apparatus		
This statement is directed to:			
<input type="checkbox"/> The attached application,			
OR			
<input checked="" type="checkbox"/> United States application or PCT international application number <u>16/132,264</u> filed on <u>9/17/2018</u> .			
LEGAL NAME of inventor to whom this substitute statement applies:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
Yongming Ding			
Residence (except for a deceased or legally incapacitated inventor):			
City	State	Country	
Hangzhou		China	
Mailing Address (except for a deceased or legally incapacitated inventor):			
C/O Alibaba Group Legal Department, 5/F Building 3 No.969 West Wen Yi Road, Yu Hang District			
City	State	Zip	Country
Hangzhou		311121	CN
I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.			
The above-identified application was made or authorized to be made by me.			
I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.			
Relationship to the inventor to whom this substitute statement applies:			
<input type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),			
<input type="checkbox"/> Assignee,			
<input checked="" type="checkbox"/> Person to whom the inventor is under an obligation to assign,			
<input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or			
<input type="checkbox"/> Joint Inventor.			

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT
REEL: 052981 FRAME: 0807

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitute statement:

- ☐ Inventor is deceased,
- ☐ Inventor is under legal incapacity,
- ☒ Inventor cannot be found or reached after diligent effort, or
- ☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.

OR

- ☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

Name: Roger Shang

Date (Optional):

Signature:

*Roger Shang***APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

If the applicant is a juristic entity, list the applicant name and the title of the signer:

Alibaba Group Holding Limited

Applicant Name:

Title of Person Executing
This Substitute Statement: Senior Legal Director

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

City San Mateo

State CA

Country US

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)

400 South El Camino Real, Ste 400

City San Mateo

State CA

Zip 94402

Country US

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.

**SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY
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Shenquan Qu			
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<input checked="" type="checkbox"/> Person to whom the inventor is under an obligation to assign,			
<input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or			
<input type="checkbox"/> Joint Inventor.			

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REEL: 052981 FRAME: 0809

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PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

Name: Roger Shang

Date (Optional):

Signature:

Roger Shang

APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

If the applicant is a juristic entity, list the applicant name and the title of the signer:

Alibaba Group Holding Limited

Applicant Name:

Title of Person Executing
This Substitute Statement: Senior Legal Director

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City San Mateo

State CA

Country US

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)

400 South El Camino Real, Ste 400

City San Mateo

State CA

Zip 94402

Country US

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