

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
FRANK YIFAN HUANG	03/24/2020
JINGJING LIU	03/24/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EMC IP HOLDING COMPANY LLC
<b>Street Address:</b>	176 SOUTH STREET
<b>City:</b>	HOPKINTON
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01748
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16831376
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(216)696-8731
<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>	
<b>Phone:</b>	216-696-8730
<b>Email:</b>	epas@thepatentattorneys.com
<b>Correspondent Name:</b>	AMIN, TUROCY & WATSON, LLP
<b>Address Line 1:</b>	200 PARK AVENUE
<b>Address Line 2:</b>	SUITE 300
<b>Address Line 4:</b>	BEACHWOOD, OHIO 44122
<b>ATTORNEY DOCKET NUMBER:</b>	116048.02US/DELLP304US
<b>NAME OF SUBMITTER:</b>	THOMAS WATSON
<b>SIGNATURE:</b>	/Thomas Watson/
<b>DATE SIGNED:</b>	03/26/2020
<b>Total Attachments: 4</b>	
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source=11604802US_Assignment#page4.tif	

## ASSIGNMENT

**WHEREAS**, we, Frank Yifan Huang and Jingjing Liu, have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled METHOD, DEVICE AND COMPUTER PROGRAM PRODUCT FOR MANAGING INDEX TABLES, the specification of which:

[X] is being executed on even date herewith and is about to be filed in the United States Patent Office;

[ ] was filed on \_\_\_\_\_ as U.S. Application No. \_\_\_\_\_;

[ ] was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

**WHEREAS**, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

**NOW, THEREFORE**, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

**AND**, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the

giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

**AND**, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

**IN TESTIMONY WHEREOF**, we have hereunto set our hands and affixed our seals as set forth below:

Date: Mar 24<sup>th</sup>, 2020

*Yifan Huang*

Inventor's Signature

Print full name of first inventor:

**Frank Yifan Huang**

Residence:

Shanghai, China

Citizenship:

China

Mailing Address:

No.25, Lan 1080, FuChang Road, Shanghai,  
China, 201906

I Chaoqian Cai (name) whose residential address is  
No.58, Lane 701, Baili Road, Shanghai, China, 200331  
was personally present and did see Frank Yifan Huang (name of person signing the  
assignment) who is personally known to me, execute the above assignment.

*Chaoqian Cai*

(signature of first witness)

Signed at No.234 Songhu Road, Yangpu District, Shanghai, China  
(location of witness signature)

on this day Mar 24<sup>th</sup> of 2020. (date of signature)

I Pengfei Su (name) whose residential address is  
Room 101, No.6, Lane 4185, Shangnan Road, Pudong District, Shanghai, China  
was personally present and did see Frank Yifan Huang (name of person signing the  
assignment) who is personally known to me, execute the above assignment.

*Pengfei Su*

(signature of second witness)

Signed at No.234 Songhu Road, Yangpu District, Shanghai, China  
(location of witness signature)

on this day Mar 24<sup>th</sup> of 2020. (date of signature)

Date: Mar 24<sup>th</sup>, 2020

Jingjing Liu  
Inventor's Signature

Print full name of first inventor: **Jingjing Liu**  
Residence: Shanghai, China  
Citizenship: China  
Mailing Address: Room 502, No 22, Lane 88, Zhengyue Road,  
Shanghai, China, 200438

I Chaoqian Cai (name) whose residential address is  
No.58, Lane 701, Baili Road, Shanghai, China, 200331  
was personally present and did see Jingjing Liu (name of person signing the  
assignment) who is personally known to me, execute the above assignment.

Chaoqian Cai (signature of first witness)

Signed at No.234 Songhu Road, Yangpu District, Shanghai, China  
(location of witness signature)

on this day Mar 24<sup>th</sup> of 2020. (date of signature)

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Pengfei Su (signature of second witness)

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