505375542 03/14/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5422335

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KINJAL BASU	01/16/2019
CHENGMING JIANG	01/16/2019
YUNBO OUYANG	01/16/2019
JOSH FLEMING	01/23/2019

RECEIVING PARTY DATA

Name:	MICROSOFT TECHNOLOGY LICENSING, LLC	
Street Address:	ONE MICROSOFT WAY	
City:	REDMOND	
State/Country:	WASHINGTON	
Postal Code:	98052	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16246403

CORRESPONDENCE DATA

Fax Number:

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.

Email: request@slwip.com

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER P.A.

Address Line 1: P.O. BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	902399-US-NP 3080.K53US1
NAME OF SUBMITTER:	TAMERAE ROBINSON
SIGNATURE:	/Tamerae Robinson/
DATE SIGNED:	03/14/2019

Total Attachments: 9

source=3080K53US1_Assignment#page1.tif source=3080K53US1_Assignment#page2.tif source=3080K53US1_Assignment#page3.tif source=3080K53US1_Assignment#page4.tif

PATENT 505375542 REEL: 048601 FRAME: 0544



PATENT REEL: 048601 FRAME: 0545

RECORDATION FORM COVER SHEET PATENTS ONLY

Patent and Trademark Office Attv Ref/Docket No.: 902399-US-NP (3080,K53US1) To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Microsoft Technology Licensing, LLC Kinjal Basu, Chengming Jiang, Yunbo Ouyang, Street Address: One Microsoft Way Josh Fleming Additional name(s) of conveying party(ies) attached? City: Redmond State: WA Zip: <u>98052</u> Country: United States of America []Yes [X]No Additional name(s) & address(es) attached? []Yes [X]No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: January 16, 2019, January 16, 2019, January 16, 2019, January 23, 2019 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. 16/246,403 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41):\$ 0.00 Name: Joshua E. Garfield [[Enclosed [Authorized to be charged to deposit account 19-Address: 0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 Please charge any additional fees or credit any over Minneapolis, Minnesota 55402 payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. February 20, 2019 Joshua E. Garfield/Reg. No. 58,416 /Joshua E. Garfield/ Name of Person Signing Signature Date Total number of pages including cover sheet: 9

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450

> PATENT REEL: 048601 FRAME: 0546

subject matt	er ("INVENTION") di		or an original joint inventor of a patent application entitled vhich:
	ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENT on the following O	ASSIGNOR hereby authorepresentative, Microsoft Tepresentative, Microsoft Tepresentative, Microsoft Tepresentation, and given Application office	Technology Licensing, on 98052 (ASSIGNEE'S in parentheses (filed Noby
		<u>y 11, 2019</u> and was given following Office " <u>US Pater</u>	
behalf of itse of acquiring priority, in the derived ther	elf and its successors the entire and exc ne INVENTION and the efrom, such as cont	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o inuing applications, in wh	limited liability company, on is entitled to, and is desirous terest, including the right of ther applications and patents tole or in part, in and for the PLICATION DERIVATIVES"));
	· ·	·	EE'S LEGAL REPRESENTATIVES the following table for any
APPLICATION	i DERIVATIVES after	they are known;	
Application	No.	Filing Date	Office

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

1	
Kinjal Bass	01/16/2019
Inventor's Signature	Date
Kinjal Basu	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 902399-US-NP

I Chengming Jiang ("ASSI inventor of subject matter ("I application entitled " <u>LARGE-SCAI</u>	NVENTION") disclosed ar	
ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENTA on	ASSIGNOR hereby authorepresentative, Microsoft Tway, Redmond, Washington (ATIVES), to insert here and given Application (Fice	Fechnology Licensing, on 98052 (ASSIGNEE'S in parentheses (filed Noby
APPLICATION's App	lication No., filing date, an	id Office, when known;
<u>16/246,403</u> by the	and assigns ("ASSIGNEE"), dusive rights, title and inf he APPLICATION (and all of inuing applications, in wh	it Office "; limited liability company, on is entitled to, and is desirous terest, including the right of ther applications and patents ole or in part, in and for the
ASSIGNOR hereby authori to insert the Application No., fi APPLICATION DERIVATIVES after	iling date, and Office into	EE'S LEGAL REPRESENTATIVES the following table for any
Application No.	Filing Date	Office
,		

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Chengming Jiang

Chengming Jiang

Printed Name in English

Ol / 16/2019

Date

Pate

Printed Name in Native Language
(if other than English)

Application No.

MS Docket No.: 902399-US-NP

of subject ma	oo Ouyang ("ASSIGNOR") am the original inventor or an original jo atter ("INVENTION") disclosed and/or claimed in a patent applicat LE AUTOMATED HYPERPARAMETER TUNING", which:	
	will be filed. ASSIGNOR hereby authorizes, and requ ASSIGNEE'S legal representative, Microsoft Technology Licen LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGN LEGAL REPRESENTATIVES), to insert here in parentheses on and given Application No the following Office)	sing, NEE'S (filed by
	APPLICATION's Application No., filing date, and Office, when kn	iown;
	was filed on <u>January 11, 2019</u> and was given Application No <u>16/246,403</u> by the following Office " <u>US Patent Office</u> ";	
behalf of itse of acquiring priority, in the derived ther	soft Technology Licensing, LLC, a Washington limited liability called and its successors and assigns ("ASSIGNEE"), is entitled to, and the entire and exclusive rights, title and interest, including the INVENTION and the APPLICATION (and all other applications efrom, such as continuing applications, in whole or in part, in s, its territories, and all foreign countries ("APPLICATION DERIVATION D	d is desirous the right of and patents and for the
to insert the	NOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRE Application No., filing date, and Office into the following tails N DERIVATIVES after they are known;	

Filing Date

Office

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

9/16/2019 Date

Inventor's Signature

Yunbo Ouyang

Printed Name in English

Printed Name in Native Language (if other than English)

I Josh Fleming ("ASSIGNOR") am the original inventor or an original joint inventor
of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled
"LARGE-SCALE AUTOMATED HYPERPARAMETER TUNING", which:
will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed
on and given Application No by
the following Office
APPLICATION's Application No., filing date, and Office, when known;
was filed on <u>lanuary 11, 2019</u> and was given Application No
16/246,403 by the following Office "US Patent Office";
Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

Application No.	Filing Date	Office
		部

MS Docket No.: 902399-US-NP

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

ONAL.	1/23/2019
Inventor's Signature	Date
Josh Fleming	
Printed Name in English	Printed Name in Native Language
	(If other than English)