505131723 10/09/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5178485

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MINJIA ZHANG	06/28/2018
XIAODONG LIU	06/28/2018
WENHAN WANG	08/09/2018
JIANFENG GAO	06/29/2018
YUXIONG HE	06/28/2018

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:	16022001

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.

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Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER P.A.

Address Line 1: P.O. BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402-0938

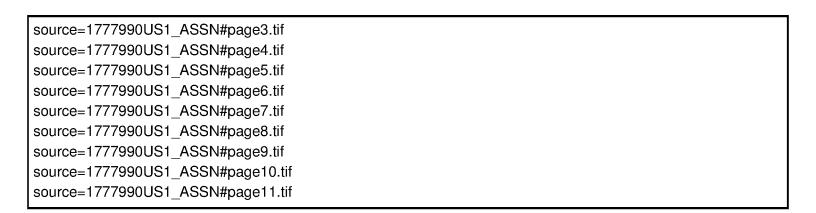
ATTORNEY DOCKET NUMBER:	404761-US-NP/1777.990US1	
NAME OF SUBMITTER:	TYLYN MOORE	
SIGNATURE:	/tylyn moore/	
DATE SIGNED:	10/09/2018	

Total Attachments: 11

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PATENT REEL: 047099 FRAME: 0797



PATENT REEL: 047099 FRAME: 0798

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 404761-US-NP (1777.990US1)

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please	
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):
Minjia Zhang, Xiaodong Liu, Wenhan Wang, Jianfeng	Name: Microsoft Technology Licensing, LLC
Gao, Yuxiong He	Street Address: One Microsoft Way
Additional name(s) of conveying party(ies) attached?	City: <u>Redmond</u> State: <u>WA</u> Zip: <u>98052</u> Country: <u>United States of America</u>
[]Yes [X]No	Additional name(s) & address(es) attached? []Yes [X]No
3. Nature of conveyance:	radicional name(s) & address(es) accuented. [11 es [11] re
[X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other	
Execution Date: <u>June 28, 2018, June 28, 2018, August 9, 2018, June 29, 2018, June 28, 2018</u>	
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. 16/022,001	
Additional numbers attached? []Yes [X]No	
5 Name and address of party to whom correspondence	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):\$ <u>0.00</u>
Name: Troy D. Smith	[]Enclosed
Address:	[]Authorized to be charged to deposit account 19-0743
Schwegman Lundberg & Woessner, P.A. P.O. Box 2938	
Minneapolis, Minnesota 55402	8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743
DO NOT USE	THIS SPACE
9. Statement and signature. To the best of my knowledge and belief, the foregoing information of the original document.	ation is true and correct and any attached copy is a true copy
T. D. G. 11/D. M. (2.246)	2018-10-08
Troy D. Smith/Reg. No. 62,349 Name of Person Signing	Signature Date
Tota	l number of pages including cover sheet: 11
Mail documents to be recorded with required cover sheet infor	mation to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450 I Minjia Zhang ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "GRAPH REPRESENTATIONS FOR DECODING NEURAL LANGUAGE MODELS", which:

will be filed. ASSIGNOR hereby authorizes, and	requests,
ASSIGNEE'S legal representative, Microsoft Technology	Licensing,
LLC, One Microsoft Way, Redmond, Washington 98052 (A	ASSIGNEE'S
LEGAL REPRESENTATIVES), to insert here in parenthe	eses (filed
on and given Application No	by
the following Office) this
APPLICATION's Application No., filing date, and Office, wh	en known;

was filed on <u>June 28, 2018</u> and was given Application No 16/022,001 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

MS Docket No.: 404761-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).

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Unia Zhang	06/28/2018
Inventor's Signature	Date
Minjia Zhang Printed Name in English	<u>現身性</u> Printed Name in Native Language
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	(if other than English)

"GRAPH REPI	RESENTATIONS FOR will be filed. ASSIGNEE'S legal LLC, One Microsof LEGAL REPRESENT on the following O	DECODING NEURAL LANG ASSIGNOR hereby authore representative, Microsoft t Way, Redmond, Washing 'ATIVES), to insert hereand given Application ffice	orizes, and requests, Technology Licensing, ton 98052 (ASSIGNEE'S in parentheses (filed No
×	was filed on <u>June 2</u>	plication No., filing date, a <u>!8, 2018</u> and was given Ap e following Office " <u>US Pate</u>	oplication No
behalf of itse of acquiring priority, in the derived there	If and its successor , the entire and ex ne INVENTION and t efrom, such as con	s and assigns ("ASSIGNEE") clusive rights, title and ir he APPLICATION (and all c tinuing applications, in wi	n limited liability company, or i, is entitled to, and is desirous sterest, including the right of other applications and patents hole or in part, in and for the PLICATION DERIVATIVES"));
to insert the		iling date, and Office int	IEE'S LEGAL REPRESENTATIVES o the following table for any
Application	No.	Filing Date	Office

MS Docket No.: 404761-US-NP

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Standy hu 06/28/2019

Inventor's Signature

indensition 1973

Xiaodong Liu ゲーパン

Printed Name in English Printed Name in Native Language (if other than English)

	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 by
	the following Office
	APPLICATION's Application No., filing date, and Office, when known;
\boxtimes	was filed on June 28, 2018 and was given Application No
	16/022,001 by the following Office "US Patent Office";
	10/022,001 by the following Office US Patent Office;
behalf of itse of acquiring priority, in the	soft Technology Licensing, LLC, a Washington limited liability company, or elf and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirou , the entire and exclusive rights, title and interest, including the right o he INVENTION and the APPLICATION (and all other applications and patent
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behalf of itse of acquiring priority, in the derived ther United State	soft Technology Licensing, LLC, a Washington limited liability company, or elf and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirou, the entire and exclusive rights, title and interest, including the right of the INVENTION and the APPLICATION (and all other applications and patent efrom, such as continuing applications, in whole or in part, in and for the s, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));
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alan	08/09/2018
Inventor's Signature	Date
Wenhan Wang	
Printed Name in English	Printed Name in Native Language
	(if other than English)

	I") disclosed and/or claimed	or or an original joint inventor in a patent application entitled GUAGE MODELS", which:
ASSIGNEE'S legal LLC, One Microst LEGAL REPRESE onthe following	ASSIGNOR hereby authal representative, Microsoft oft Way, Redmond, Washing NTATIVES), to insert here and given Application Office	Technology Licensing, gton 98052 (ASSIGNEE'S in parentheses (filed how) this
	<u>e 28, 2018</u> and was given A the following Office " <u>US Pate</u>	
behalf of itself and its success of acquiring, the entire and priority, in the INVENTION and	ors and assigns ("ASSIGNEE" exclusive rights, title and in d the APPLICATION (and all ontinuing applications, in w	n limited liability company, on), is entitled to, and is desirous nterest, including the right of other applications and patents thole or in part, in and for the PPLICATION DERIVATIVES"));
•	, filing date, and Office in	NEE'S LEGAL REPRESENTATIVES to the following table for any
Application No.	Filing Date	Office

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Inventor's Signature

Jianfeng Gao

Printed Name in English

Date 💉

Printed Name in Native Language (if other than English)

	LEGAL REPRESENTATIVES onan the following Office _		by
	APPLICATION's Applicatio		
×	was filed on June 28, 201	8 and was given Applicati	on No
	16/022,001 by the follow	ring Office " <u>US Patent Offi</u>	
behalf of its of acquiring priority, in t derived the		LLC, a Washington limite ssigns ("ASSIGNEE"), is ent rights, title and interest, LICATION (and all other a applications, in whole or	ce": d liability company, on itled to, and is desirous including the right of pplications and patents in part, in and for the
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MS Docket No.: 404761-US-NP

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Inventor's Signature

Yuxiong He

Printed Name in English

06/28/2018

Date

Printed Name in Native Language

(if other than English)