502136044 11/20/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Frank Torsten Bernd Seide	11/06/2012
Gang Li	11/06/2012
Dong Yu	11/05/2012
Adam C. Eversole	11/15/2012
Xie Chen	11/09/2012

RECEIVING PARTY DATA

Name:	Microsoft Corporation	
Street Address:	One Microsoft Way	
City:	Redmond	
State/Country:	WA	
Postal Code:	98052-6399	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13682372

CORRESPONDENCE DATA

Fax Number: 5099444692

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 509-324-9256

Email: marianne@leehayes.com

Correspondent Name: Lee & Hayes, PLLC

Address Line 1: 601 W. Riverside Ave, Suite 1400
Address Line 4: Spokane, WASHINGTON 99201

ATTORNEY DOCKET NUMBER:	MS1-5329US
NAME OF SUBMITTER:	Marianne Wintermute

Total Attachments: 10

PATENT REEL: 029332 FRAME: 0411 DP \$40,00 13682372

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PATENT REEL: 029332 FRAME: 0412

PATENT	ASSIGNMENT	MS Docket No.:	336983.01	
	Attor	ney Docket No.:	MS1- 5329US	
Frank Torsten B		-	he original inventor	
or an original joint inventor of	subject matter ("IN	VENTION") disclo	sed and/or claimed	
in a patent application entitled				
DEEP NEURAL NETWORK	S TRAINING FOR SPEE	ECH AND PATTERN	RECOGNITION	
("APPLICATION"), which:				
<u> </u>	ASSIGNOR hereby	authorizes. ar	nd requests.	
	representatives, of			
-	osoft Corporation, (-		
•	2 (ASSIGNEE'S LEGA		• •	
here in parenth	eses (filed on <u>N</u>	ovember 20, 2012	and given	
Application No. $\underline{1}$	3/682,372 by th	e following Office	e <u>US – United</u>	
States Patent	and Trademark (<u>Office</u>) this Al	PPLICATION's	
Application No., f	iling date, and Offic	e, when known;		
was filed on	and was	given Application	n No	
	by the following Of	fice " <u>US – United</u>	<u>States Patent</u>	
<u>and Trademark O</u>				
Microsoft Corporation,	- .			
successors and assigns ("ASSIC			• •	
entire and exclusive rights, tit				
(and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries				
("APPLICATION DERIVATIVES"));	Jilited States, its to	erritories, and a	ii loreigii countries	
(7.11 212) (11311 22 11 17 11 12 2 7),				
ASSIGNOR hereby	authorizes, and	requests, A	SSIGNEE'S LEGAL	
REPRESENTATIVES to insert t	he Application No.	., filing date, a	nd Office into the	
following table for any APPLICA	TION DERIVATIVES	after they are kno	own;	
Application No.	Filing Date	Office		

PATENT ASSIGNMENT	MS Docket No.:	336983.01
Att	orney Docket No.:	MS1- 5329US

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 in the INVENTION and the APPLICATION (and 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).

Frank La	224/11/6
Inventor's Signature	Date
Frank Torsten Bernd Seide	
Printed Name in English	Printed Name in Native Language (if other than English)

PATEN	T ASSIGNMENT	MS Docket No.:	336983.01	
	At	torney Docket No.:	MS1- 5329US	
IGan		•	the original inventor	
or an original joint inventor	of subject matter ("INVENTION") disclo	sed and/or claimed	
in a patent application entitle	èd			
DEEP NEURAL NETWOF	RKS TRAINING FOR SI	PEECH AND PATTERN	I RECOGNITION	
("APPLICATION"), which:				
will be filed.	ASSIGNOR here	eby authorizes, a	nd requests.	
	al representatives, o	•	•	
_	icrosoft Corporation		•	
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Application No.	by	the following Offic	e <u>US – United</u>	
States Patent	<u>and Trademark</u>	<u>Office</u>) this A	PPLICATION's	
Application No.	, filing date, and Of	fice, when known;		
\square was filed on $_$	and w	as given Applicatio	n No	
	by the following	Office " <u>US – United</u>	States Patent	
<u>and Trademark</u>	<u>Office</u>)";			
Microsoft Corporation	·	•		
successors and assigns ("AS				
entire and exclusive rights,				
(and all other applications	•		-	
applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));				
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ASSIGNOR hereby	authorizes, ar	nd requests, A	SSIGNEE'S LEGAL	
REPRESENTATIVES to insert the Application No., filing date, and Office into the				
following table for any APPLI	<u>CATION DERIVATIVI</u>	S after they are kno	own;	
Application No.	Filing Date	Office		

PATENT ASSIGNMENT MS Docket No.: 336983.01

Attorney Docket No.: MS1-5329US

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 in the INVENTION and the APPLICATION (and 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).

Inventor's Signature Date

Gang Li

Printed Name in English Printed Name in Native Language

(if other than English)

PATENT	ASSIGNMENT MS	Docket No.:	336983.01	
	Attorney	Docket No.:	MS1- 5329US	
I Dong `	<u>(u</u> ("ASS			
or an original joint inventor of	subject matter ("INVEN	TION") disclo	osed and/or claimed	
in a patent application entitled				
DEEP NEURAL NETWORK	S TRAINING FOR SPEECH	AND PATTERN	RECOGNITION	
("APPLICATION"), which:				
<u> </u>	ASSIGNOR hereby a	ithorizes a	nd requests	
	representatives, of the			
-	osoft Corporation, One		-	
•	2 (ASSIGNEE'S LEGAL RE		• •	
-	eses (filed on <u>Nove</u>			
·	3/682,372 by the fo		-	
States Patent	and Trademark Offi	<u>ce</u>) this A	PPLICATION's	
Application No., f	iling date, and Office, w	hen known;		
\square was filed on	and was give	en Applicatio	n No	
	by the following Office	" <u>US – United</u>	States Patent	
<u>and Trademark O</u>	ffice)";			
Microsoft Corporation,	a Washington Corpora	tion, on beh	alf of itself and its	
successors and assigns ("ASSI	GNEE"), is entitled to, a	nd is desiro	us of acquiring, the	
entire and exclusive rights, tit	le and interest in the I	NVENTION a	nd the APPLICATION	
(and all other applications	•		-	
applications, in and for the United States, its territories, and all foreign countries				
("APPLICATION DERIVATIVES"));				
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ASSIGNOR hereby REPRESENTATIVES to insert t	authorizes, and r	•		
following table for any APPLICA		_		
Application No.	Filing Date	Office	own,	
Application No.	Tilling Date	Office		

PATENT ASSIGNMENT MS Docket No.: 336983.01

Attorney Docket No.: MS1- 5329US

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 in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

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Inventor's Signature

Dong Yu

Printed Name in English

Date

俞栋

Printed Name in Native Language (if other than English)

	PATENT A	ASSIGNMENT	MS Docket No.:	336983.01
		At	torney Docket No.:	MS1- 5329US
*	Adam C. Ev		•	the original inventor
or an origini	al joint inventor of	subject matter ("INVENTION") disc	losed and/or claimed
	pplication entitled	•		
	NEURAL NETWORKS	TRAINING FOR S	PEECH AND PATTER	N RECOGNITION
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"APPLICATION")	on), which, will be filed.	ASSIGNOR here	shy authorizes.	and requests.
877			of the Law and Co	
			n, One Microsoft \	
			GAL REPRESENTAT	
	here in parenth	eses (filed on	November 20, 2012	and given
	Application No. 1	3/682,372 by	the following Off	ice <u>US – United</u>
	States Patent	and Trademark	<u>Office</u>) this	APPLICATION'S
	Application No., f	iling date, and O	ffice, when known	, (
	was filed on	and v	vas given Applicati	on No
	***************************************	by the following	Office " <u>US – Unite</u>	<u>id States Patent</u>
	and Trademark O	ffice)";		
Micro	soft Corporation,	a Washington C	orporation, on be	half of itself and its
successors	and assigns ("ASSI	GNEE"), is entitie	d to, and is desir	ous of acquiring, the
entire and	exclusive rights, til	le and interest i	n the INVENTION	and the APPLICATION
(and all of	ther applications	and patents de	grived thereiroin,	such as continuing
			5 fattitotics, and	all foreign countries
("APPLICATI	on derivatives"))	•		
ACCI	INOR hereby	authorizes. a	nd requests.	ASSIGNEE'S LEGAL
REPRESENTA	ATIVES to insert	the Application	No., filing date,	and Office into the
following ta	ble for any APPLIC	ATION DERIVATIV	<u>'ES after they are k</u>	(nown;
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Page 1 of 2

PATENT ASSIGNMENT

MS Docket No.: 336983.01

Attorney Docket No.:

MS1- 5329US

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 in the INVENTION and the APPLICATION (and 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).

adam Eversola	11/15/2012
Inventor's Signature	Date
Adam C. Eversole	
Printed Name in English	Printed Name in Native Language (if other than English)

	PATENT ASSIGN	MENT MS	Docket No.:	336983.01
		Attorney	Docket No.:	MS1- 5329US
1	Xie Chen			
or an original j	oint inventor of subject	matter ("INVEN	(TION") disclo	sed and/or claimed
	lication entitled			
DEEP NE	EURAL NETWORKS TRAININ	IG FOR SPEECH	AND PATTERN	RECOGNITION
("APPLICATION	") which			
	vill be filed. ASSIGN	OR hereby a	uthorizes, a	nd requests,
	SSICNEE'S legal represer			
	epartment, Microsoft Co	orporation, One	e Microsoft W	ay, Redmond,
W	ashington 98052 (ASSIC	inee's legal r	EPRESENTATI	VES), to insert
h	ere in parentheses (f	iled on <u>Nov</u>	ember 20, 2012	and given
Δ , ::	application No. 13/682,37	2 by the f	ollowing Offic	te <u>US - Uniteu</u>
5	tates Patent and Ti application No., filing dat	agemark <u>Ou</u>	when known	(I CICATION)
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L1 V	by the	following Offic	e "US – United	i States <u>Patent</u>
	ind Trademark Office)";	, 0,10,111,2, 0,11,0		V
Microsc	oft Corporation, a Wash	ington Corpor	ation, on bel	half of itself and its
successors an	d assigns ("ASSIGNEE"),	is entitled to,	and is desire	ous of acquiring, the
ontire and evi	-lusive rights, title and	interest in the	INVENTION a	and the APPLICATION
(and all othe	er applications and pa	tents derived	therefrom,	such as continuing
	in and for the United	States, its teri	nones, and	an foreign countries
("APPLICATION	N DERIVATIVES"));			
ASSICN	OR hereby authori	zes, and	requests,	ASSIGNEE'S LEGAL
REPRESENTAT	IVES to insert the Apr	olication No.,	filing date,	and Office into the
following tabl	e for any APPLICATION E	ERIVATIVES aft	<u>ter they are ki</u>	nown:
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Page 1 of 2

PATENT ASSIGNMENT	MS Docket No.:	336983.01
Att	omey Docket No.:	MS1- 5329US

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Xie dren	11/09 /2012
Inventor's Signature	Date
Xie Chen	强. i 智
Printed Name in English	Printed Name in Native Language
	(if other than English)