PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5053061

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the RECEIVING PARTY DATA, PREVIOUSLY RECORDED INCORRECTLY AS "MICROSOFT TECHNOLOGY LICENSING, LLC." previously recorded on Reel 040160 Frame 0813. Assignor(s) hereby confirms the ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
MEI LIANG	08/11/2016
WEILUO	08/22/2016
LINGZHI SUN	08/15/2016
NAVENDU JAIN	08/11/2016

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:	15245675

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:	usdocket@microsoft.com
Correspondent Name:	SCHWEGMAN LUNDBERG & WOESSNER P.A.
Address Line 1:	P.O. BOX 2938
Address Line 4:	MINNEAPOLIS, MINNESOTA 55402-0938

ATTORNEY DOCKET NUMBER:	358402-US-NP(1777.231US1)
NAME OF SUBMITTER:	TYLYN MOORE
SIGNATURE:	/tylyn moore/
DATE SIGNED:	07/17/2018
Total Attachmenter 11	

Total Attachments: 11

source=1777231US1_CorrectiveAssn#page1.tif

source=1777231US1_CorrectiveAssn#page2.tif	
source=1777231US1_CorrectiveAssn#page3.tif	
source=1777231US1_CorrectiveAssn#page4.tif	
source=1777231US1_CorrectiveAssn#page5.tif	
source=1777231US1_CorrectiveAssn#page6.tif	
source=1777231US1_CorrectiveAssn#page7.tif	
source=1777231US1_CorrectiveAssn#page8.tif	
source=1777231US1_CorrectiveAssn#page9.tif	
source=1777231US1_CorrectiveAssn#page10.tif	
source=1777231US1_CorrectiveAssn#page11.tif	

504072409 10/28/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4119076

SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYAN	CE:	ASSIGNMENT	
CONVEYING PARTY DA	TA		
		Name	Execution Date
MEI LIANG			08/11/2016
NAVENDU JAIN			08/11/2016
WEI LUO			08/22/2016
LINGZHI SUN			08/15/2016
RECEIVING PARTY DAT	A		
Name:	MICRO	SOFT TECHNOLOGY LICENSING, L	_LC.
Street Address:	ONE M	ICROSOFT WAY	
City:	REDMO	OND	
State/Country:	WASHI	NGTON	
Postal Code:	98052		
Property Type Application Number:		Number 15245675	
Application Number:		15245675	
CORRESPONDENCE DA		(509)323-8979	
Fax Number: <i>Correspondence will be</i>	sent to	(509)323-8979 • the e-mail address first; if that is u I; if that is unsuccessful, it will be s	
Fax Number: <i>Correspondence will be</i>	sent to rovided	the e-mail address first; if that is u	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email:	sent to rovided	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> 509-324-9256 janettea@leehayes.com	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name:	sent to rovided	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> 509-324-9256 janettea@leehayes.com LEE & HAYES, PLLC	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1:	sent to rovided	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> 509-324-9256 janettea@leehayes.com LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name:	sent to rovided	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> 509-324-9256 janettea@leehayes.com LEE & HAYES, PLLC	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	sent to rovided	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> 509-324-9256 janettea@leehayes.com LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE SUITE 1400	
Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	sent to rovided	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> 509-324-9256 janettea@leehayes.com LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE SUITE 1400 SPOKANE, WASHINGTON 99201	
Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	sent to rovided	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> 509-324-9256 janettea@leehayes.com LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE SUITE 1400 SPOKANE, WASHINGTON 99201 MS1-6312US	

source=1KS6164#page3.tif source=1KS6164#page4.tif source=1KS6164#page5.tif source=1KS6164#page6.tif source=1KS6164#page7.tif source=1KS6164#page8.tif

PATENT ASSIGNMENT		MS Docket No.:	358402.01	
		Attomey Docket No.:	MS1- 6312US	
	Mei Liang	("ASSIGNOR") an	n the original inventor	
	al joint inventor of subject man plication entitled	tter ("INVENTION") disclo	sed and/or claimed in	
	CHARACTERISTIC-PA	ITERN ANALYSIS OF TEXT		
("APPLICATIO	ON"), which:			
X	will be filed. ASSIGNOR ASSIGNEE'S legal representa		ogy Licensing,	

LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on <u>August 24, 2016</u> and given Application No. <u>15/245,675</u> by the following Office <u>US – United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when known;

was filed on ______ and was given Application No ______ by the following Office US - United States Patent and Trademark 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	

Page 1 of 2

PATENT REEL: 040566 FRAME: 0803

MS Docket No.: 358402.01

Attorney Docket No.: MS1-6312US

	1	
		-
- 3		1
		-
- 1		
- 6		
- [1
- 1		-
- 1	1	
1		1
		1

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 pricrity, 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 Urited 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).

¥Y6	8/11/2016
nventor's Signature	Date
Mei Liang	课梅
Printed Name in English	Printed Name in Native Language (if other than English)

Page 2 of 2

PATENT REEL: 040560 FRAME: 0806

Attorney Docket No.: MS1- 6312US

I ______ ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled

CHARACTERISTIC-PATTERN ANALYSIS OF TEXT

("APPLICATION"), 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 <u>August 24, 2016</u> and given Application No. <u>15/245,675</u> by the following Office <u>US – United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when known;

was filed on ______ and was given Application
 No ______ by the following Office <u>US - United States</u>
 <u>Patent and Trademark Office</u>;

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
	······	

Attorney Docket No.: MS1-6312US

-	 	/
1		
1		
-		
1		
-	 	
1		
	 ***************************************	***************************************

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).

Learner	08/22/2016	
Inventor's Signature	Date	
Wei Luo	罗薇	
Printed Name in English	Printed Name in Native Language	
	(if other than English)	

MS Docket No.: <u>358402.01</u>
Attorney Docket No.: <u>MS1- 6312US</u>

I ______ Lingzhi Sun ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled

CHARACTERISTIC-PATTERN ANALYSIS OF TEXT

("APPLICATION"), 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 <u>August 24, 2016</u> and given Application No. <u>15/245,675</u> by the following Office <u>US - United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when known;
- was filed on ______ and was given Application
 No ______ by the following Office <u>US United States</u>
 <u>Patent and Trademark Office</u>;

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
l		·
1		

MS Docket No.: 358402.01

Attorney Docket No.: MS1-6312US

 	~*
 · · · · · · · · ·	· · ·

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).

ingthi Sun 2016.8.15 Date 3N. 1/2 E Inventor's Signature

Lingzhi Sun

Printed Name in English

Printed Name in Native Language (if other than English)

RECORDED: 10/28/2016

MS Docket No.: 358402.01

Attorney Docket No.: MS1- 6312US

I ______Navendu Jain _____ ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled

CHARACTERISTIC-PATTERN ANALYSIS OF TEXT

("APPLICATION"), 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 <u>August 24, 2016</u> and given Application No. <u>15/245,675</u> by the following Office <u>US – United States Patent and Trademark Office</u>) this APPLICATION's Application No., filing date, and Office, when known;

was filed on ______ and was given Application
 No ______ by the following Office <u>US - United States</u>
 <u>Patent and Trademark Office</u>;

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 <u>APPLICATION DERIVATIVES after they are known;</u>

Application No.	Filing Date	Office

Attorney Docket No.: MS1-6312US

			2
			(· · · · · · · · · · · · · · · · · · ·
			1
			· · · ·
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		1 i i i i i i i i i i i i i i i i i i i
			)
			1 i
			( · · · · · · · · · · · · · · · · · · ·
- 2			
- 18			
			***************************************
- 2			
- 6			ł , , , , , , , , , , , , , , , , , , ,
			s
- 2			
- 3			ł

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).

Inventor's Signature

Navendu Jain

Printed Name in English

Date ' /

Printed Name in Native Language (if other than English)

Page 2 of 2