506393383 12/09/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6440139

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BO YANG	12/07/2020
CHAOFAN HUANG	12/07/2020
SONGTAO GUO	12/07/2020
ROBERT PERRIN REEVES	12/07/2020
WAN QI GAO	12/07/2020
PATRICK RYAN DRISCOLL	12/07/2020
KRISTINA CAROLINE RYAN	12/07/2020
MICHAEL MARIO JENNINGS	12/07/2020
JEREMY LWANGA	12/07/2020
MANZARUL AZAD KAZI	12/07/2020

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:	17116184

CORRESPONDENCE DATA

Fax Number: (612)339-3061

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.

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER / LINKEDIN

Address Line 1: PO BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER: 902688-US-NP 3080.N95US1

PATENT 506393383 REEL: 054592 FRAME: 0436

NAME OF SUBMITTER:	DAWN DRAPER
SIGNATURE:	/Dawn R. Draper/
DATE SIGNED:	12/09/2020
Total Attachments: 20	
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> PATENT REEL: 054592 FRAME: 0437

I Bo YANG ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

X	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 and was given Application No by the
	following Office "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"));

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Bo Yang	12/07/2020	
Inventor's Signature	Date	
Bo YANG		
Printed Name in English	Printed Name in Native Language	
	(if other than English)	

I Chaofan HUANG ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

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Charfan Huang	12/07/2020
Inventor's Signature	Date
Chaofan HUANG	黄超凡
Printed Name in English	Printed Name in Native Language
<u>=</u> -	(if other than English)

I Songtao GUO ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

\times	will be filed. ASSIGNOR hereby authorizes, and requests
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songtao guo	2020-12-07
Inventor's Signature	Date
Songtao GUO	郭嵩涛
Printed Name in English	Printed Name in Native Language
	(if other than English)

I Robert Perrin REEVES ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

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105-17 1000	12/07/2020
Inventor's Signature	Date
Robert Perrin REEVES	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I Wan Qi GAO ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

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Ways Ja	Dec 7, 2020
Inventor's Signature	Date
Wan Qi GAO	高宛琪
Printed Name in English	Printed Name in Native Language
	(if other than English)

I Patrick Ryan DRISCOLL ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

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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 1 0 W. 1/	
1 and for Now	12/7/20
Inventor's Signature	Date
Patrick Ryan DRISCOLL	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 902688-US-NP

I Kristina Caroline RYAN ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

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Kristina Ryan	12.7.2020
Inventor's Signature	Date
Kristina Caroline RYAN	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I Michael Mario JENNINGS ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

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198 A aming	77-7-20
Inventor's Signature	Date
Michael Mario JENNINGS	
Printed Name in English	Printed Name in Native Language

(if other than English)

Page 2 of 2

	Jere	my LW	/ANGA	("A	SSIGNOR")	am	the	origina	l invent	or or	an	ori	gina	al joint
inventor	of	subjec	t mat	ter	("INVENTIO	ON")	disc	losed	and/or	claim	ned	in	a	patent
applicati	on e	ntitled	"REVER	RSAL	<u>-POINT-BA</u>	<u>SED</u>	<u>DETE</u>	CTION	<u>AND RA</u>	<u>NKING</u>	", wl	hich	ı:	

\times	will be filed. ASSIGNO	R hereby	authorizes,	and	requests
	ASSIGNEE'S legal represen	ative, Mici	osoft Techn	ology	Licensing
	LLC, One Microsoft Way, Re	edmond, W	ashington <mark>9</mark> 8	052 (A	SSIGNEE'S
	LEGAL REPRESENTATIVES),	o insert h	ere in paren	theses	(filed or
			and given	Applic	ation No
			by the	followi	ng Office
) this
	APPLICATION's Application N	lo., filing da	ate, and Offic	e, whei	n known;
	was filed on	_ and was	given Applica	ation No	o
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Inventor's Signature

Jeremy LWANGA Date 12/7/2020

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

I Manzarul Azad KAZI ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "REVERSAL-POINT-BASED DETECTION AND RANKING", which:

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- Marie -	12/07/2020
Inventor's Signature	Date
Manzarul Azad KAZI	
Printed Name in English	Printed Name in Native Language
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