### 506108428 06/16/2020

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6155150

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MICHAEL GEORGE CHEMISTRUCK	02/11/2020
NIKUNJ RAGHUVANSHI	02/11/2020
KYLE ROBERT STORCK	02/12/2020
NOEL RICHARD CROSS	02/11/2020
HAKON STRANDE	02/11/2020
TRAVIS JOSEPH FODOR	02/11/2020
KEITH WILLIAM GODIN	05/05/2020
ASHUTOSH VIDYADHAR TATAKE	05/06/2020
JONATHAN G PAULOVICH	02/12/2020

#### **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:	16780326

#### **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

ATTORNEY DOCKET NUMBER:	407981-US-NP (1777.E44US1
NAME OF SUBMITTER:	ABBY JACKSON
SIGNATURE:	/Abby Jackson/

PATENT REEL: 052948 FRAME: 0489

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DATE SIGNED:	06/16/2020						
Total Attachments: 19							
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PATENT REEL: 052948 FRAME: 0490

# RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 407981-US-NP (1777.E44US1) Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Microsoft Technology Licensing, LLC Michael George Chemistruck, Nikunj Raghuvanshi, Kyle Robert Storck, Noel Richard Cross, Hakon Strande, Travis Joseph Fodor, Keith William Godin, Ashutosh Street Address: One Microsoft Way Vidyadhar Tatake, Jónathan G Paulovich City: Redmond State: WA Zip Country: United States of America Zip: 98052 Additional name(s) of conveying party(ies) attached? Additional name(s) & address(es) attached? []Yes [ ]Yes [X]No [X]No 3. Nature of conveyance: [X] Assignment [ ] Merger [ ] Security Agreement [ ] Change of Name [ ] Other Execution Date: <u>February 11, 2020, February 11, 2020, February 12, 2020, February 11, 20</u> 2020, February 11, 2020, May 5, 2020, May 6, 2020 February 12, 2020 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. 16/780,326 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):\$ <u>0.00</u> Name: Bradley A. Forrest []Enclosed [Authorized to be charged to deposit account Address: 19-0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 8. 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. Bradley A. Forrest/Reg. No. 30,837 Name of Person Signing Total number of pages including cover sheet: 19

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: 052948 FRAME: 0491

l Michael George Chemisti	ruck ("ASSIGNOR") am the o	original inventor or an original
joint inventor of subject matter	r ("INVENTION") disclosed	and/or claimed in a patent
application entitled "Augmented	Reality Virtual Audio Sour	<u>ce Ennancement</u> ", wnich:
ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENT on the following Of	ASSIGNOR hereby authorepresentative, Microsoft of Way, Redmond, Washington (ATIVES), to insert here and given Application of the months of the	Technology Licensing, con 98052 (ASSIGNEE'S in parentheses (filed Noby) this
	ary 3, 2020 and was given following Office " <u>US Pater</u>	
Microsoft Technology Lice behalf of itself and its successors of acquiring, the entire and exc priority, in the INVENTION and the derived therefrom, such as cont United States, its territories, and	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o cinuing applications, in wh	terest, including the right of ther applications and patents ole or in part, in and for the
	zes, and requests, ASSIGN iling date, and Office into	EE'S LEGAL REPRESENTATIVES
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).

inventor's Signature

Date

Michael George Chemistruck

Printed Name in English

Printed Name in Native Language

(if other than English)

REEL: 052948 FRAME: 0493

I Niku	nj Raghuvanshi ("A!	SSIGNOR") am the original	inventor or an original joint
inventor of	subject matter ("I	INVENTION") disclosed a	nd/or claimed in a patent
application e	ntitled " <u>Augmented</u>	Reality Virtual Audio Sour	<u>ce Enhancement</u> ", which:
	will be filed.	ASSIGNOR hereby autho	rizes, and requests,
	ASSIGNEE'S legal r	epresentative, Microsoft	Technology Licensing,
	_	: Way, Redmond, Washingt	<u> </u>
	·	ATIVES), to insert here	
		and given Application	•
	the following Of		
	5	olication No., filing date, ar	
$\boxtimes$	was filed on Februa	ary 3, 2020 and was given	Application No
		following Office " <u>US Pater</u>	
	,		,
Micros	soft Technology Lice	ensing, LLC, a Washington	limited liability company, on
	<del>-</del> .		is entitled to, and is desirous
		<del>-</del>	terest, including the right of
		<del>-</del>	ther applications and patents
• • •			ole or in part, in and for the
			PLICATION DERIVATIVES"));
		-	
ASSIG	NOR hereby authori	zes, and requests, ASSIGN	EE'S LEGAL REPRESENTATIVES
to insert the	Application No., f	iling date, and Office into	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"));

riet	Feb 11, 2020
Inventor's Signature	Date
Nikunj Raghuvanshi	
Printed Name in English	Printed Name in Native Language (if other than English)

	ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENTA	epresentative, Micr : Way, Redmond, Wa ATIVES), to insert and given Appli	authorizes, and requests, rosoft Technology Licensing, ashington 98052 (ASSIGNEE'S here in parentheses (filed ication Noby
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×	l was filed on <u>Febru</u> a		s given Application No
	<u>16/780,326</u> by the	following Office " <u>U</u>	<u>IS Patent Office ";</u>
behalf of its of acquiring priority, in t derived the	osoft Technology Lice elf and its successors g, the entire and exc the INVENTION and th refrom, such as conti	ensing, LLC, a Wash and assigns ("ASSIC dusive rights, title a he APPLICATION (an inuing applications,	IS Patent Office ";  nington limited liability company, GNEE"), is entitled to, and is desire and interest, including the right and all other applications and pate is, in whole or in part, in and for es ("APPLICATION DERIVATIVES"));
behalf of its of acquiring priority, in t derived thei United State ASSIC to insert th	osoft Technology Lice elf and its successors g, the entire and exc the INVENTION and th refrom, such as cont es, its territories, and GNOR hereby authoriz	ensing, LLC, a Wash and assigns ("ASSIC flusive rights, title a he APPLICATION (an inuing applications, all foreign countrie zes, and requests, A lling date, and Offic	nington limited liability company, GNEE"), is entitled to, and is desire and interest, including the right and all other applications and pate i, in whole or in part, in and for

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).

Investor's Signature

Date

**Kyle Robert Storck** 

Printed Name in English

Printed Name in Native Language

(if other than English)

l Noe	l Richard	Cross (	"ASSIGNOR")	am the	original	invento	or or an	origii	nal joint
inventor of	subject	matter	("INVENTION	√"). disc	losed a	nd/or d	claimed	in a	patent
application	entitled "¿	<u> Augment</u>	ed Reality Vi	<u>rtual Au</u>	<u>dio Sour</u>	<u>ce Enha</u>	<u>ncemen</u>	ţ", wh	ich:

will	be	filed	. /	ASSIC	NOR	he	ereby	auth	orize	25,	and	req	uests,
ASSI	GNEE	e'S le	gal r	epres	senta	itive	, Mic	rosoft	Tec	hno	logy	Licer	nsing,
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on_		11		a	ınd g	iven	Appl	ication	No.				by
the	follo	wing	a Of	fice	MANAGEMENT AND A STATE OF THE S	***************************************	**********	***************	*********		******		this
APPL	.ICAT	'ION'	s App	licati	on N	lo., 1	iling (	date, a	nd (	Offic	e, wh	en kı	nown;

was filed on <u>February 3, 2020</u> and was given Application No <u>16/780,326</u> by the following Office "<u>US Patent 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
*********			
400000			

MA MACONINA CONTRACTOR Signature	2/11/20 Date
Noel Richard Cross	
Printed Name in English	Printed Name in Native Language
	(if other than English)

of subject matter ("INVE		ginal inventor or an original or claimed in a patent applic ncement", which:		
LLC, One LEGAL RE on the follo APPLICAT	'S legal representative, Microsoft Way, Redmon EPRESENTATIVES), to inand given owing Office ION's Application No., fi	reby authorizes, and red Microsoft Technology Lice d, Washington 98052 (ASSI) nsert here in parentheses Application No.	ensing, GNEE'S (filedby ) this	
	on <u>February 3, 2020</u> and <u>26</u> by the following Offi	d was given Application No ice " <u>US Patent 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		

1 0	
Inventor's Signature	2 - 11 - 2020 Date
Hakon Strande Printed Name in English	Printed Name in Native Language
	(if other than English)

Application No.

inventor of	is Joseph Fodor ("ASSIGNOR") am the original inventor or an original joint subject matter ("INVENTION") disclosed and/or claimed in a patent intitled "Augmented Reality Virtual Audio Source Enhancement", 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 onand given Application Noby the following Office) this APPLICATION's Application No., filing date, and Office, when known;
×	was filed on <u>February 3, 2020</u> and was given Application No <u>16/780.326</u> by the following Office " <u>US Patent Office</u> ";
behalf of its of acquiring priority, in t derived the	soft Technology Licensing, LLC, a Washington limited liability company, on elf and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous in the entire and exclusive rights, title and interest, including the right of the INVENTION and the APPLICATION (and all other applications and patents refrom, such as continuing applications, in whole or in part, in and for the is, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));
to insert th	SNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES e Application No., filing date, and Office into the following table for any N DERIVATIVES after they are known:

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Filing Date

Office

	2-11-20
Inventor's Signature	Date
Travis Joseph Fodor	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I Keith William Godin ("AS inventor of subject matter ("I		l inventor or an original joint nd/or claimed in a patent
application entitled "Augmented		•
ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENT on the following Of	ASSIGNOR hereby authorepresentative, Microsoft Way, Redmond, Washingt ATIVES), to insert here and given Application fice blication No., filing date, and	Technology Licensing, ton 98052 (ASSIGNEE'S in parentheses (filed Noby) this
	ary 3, 2020 and was given following Office " <u>US Pater</u>	
Microsoft Technology Lice behalf of itself and its successors of acquiring, the entire and exc priority, in the INVENTION and the derived therefrom, such as cont United States, its territories, and	s and assigns ("ASSIGNEE"), clusive rights, title and in ne APPLICATION (and all o inuing applications, in wh	terest, including the right of ther applications and patents nole or in part, in and for the
ASSIGNOR hereby authorize to insert the Application No., fit APPLICATION DERIVATIVES after	ling 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"));

Type lext here	
Hollier Toplian Toplian Inventor's Signature	5 May 2020 Date
Keith William Godin	
Printed Name in English	Printed Name in Native Language (if other than English)

I Ashutosh Vidyadhar Tatake ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "Augmented Reality Virtual Audio Source Enhancement", which: L 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 and given Application No. the following Office \_\_\_\_\_\_ this APPLICATION's Application No., filing date, and Office, when known; was filed on February 3, 2020 and was given Application No. 16/780,326 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

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Ashutosh Vidyadhar Tatake

Printed Name in English

Printed Name in Native Language

(if other than English)

l Jonathan G P	aulovich ("ASSIGN	OR") am the origin	al inventor or an	original joint
inventor of subject	matter ("INVENT	TON") disclosed	and/or claimed	in a patent
application entitled "	<u>Augmented Reality</u>	/ Virtual Audio Sou	<u>irce Enhancement</u>	ː", 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
onby
the following Office
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was filed on <u>February 3, 2020</u> and was given Application No <u>16/780,326</u> by the following Office "<u>US Patent Office</u>";

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	Application No.	Filing Date	Office
200000			

***************************************	
	2/12/20
Inventor's Signature	Date
Jonathan G Paulovich Printed Name in English	Printed Name in Native Language
	(if other than English)