#### 508987395 01/23/2025

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 Assignment ID: PATI775892

NATURE OF CONVEYANCE:  Corrective Assignment to correct the typographical error in the filing date of the current U.S. application in the executed document previously recorded on Reel 59683 Frame 953. Assignor(s) hereby confirms the the assignment.	SUBMISSION TYPE: CORRECTIVE ASSIGNMENT							
		of the current U.S. application in the executed document previously recorded on Reel 59683 Frame 953. Assignor(s) hereby confirms the the						

# **CONVEYING PARTY DATA**

Name	Execution Date		
YONGHUAN DAVID REN	11/18/2019		
TIMOTHY ANDREW LARGE	11/18/2019		
NEIL EMERTON	11/19/2019		
YUQIAN ZHOU	11/18/2019		

### **RECEIVING PARTY DATA**

Company 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:	17755190				

#### **CORRESPONDENCE DATA**

Fax Number: 5035957301

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.

Phone: 5035957300

Email: cpolance@allemanhall.com

**Correspondent Name:** Catherine Polance

ALLEMAN HALL & TUTTLE LLP Address Line 1: Address Line 2: 900 SW 5th Ave., Suite 2300 Address Line 4: Portland, OREGON 97204

ATTORNEY DOCKET NUMBER:	407520-US-PCT
NAME OF SUBMITTER:	Catherine Polance
SIGNATURE:	/Catherine Polance/
DATE SIGNED:	01/23/2025

# Total Attachments: 10 source=2025-01-23 Corrective Assignments 407520-US-PCT#page1.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page2.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page3.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page4.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page5.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page6.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page7.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page8.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page9.tiff source=2025-01-23 Corrective Assignments 407520-US-PCT#page9.tiff

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7294335

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
YONGHUAN DAVID REN	11/18/2019
TIMOTHY ANDREW LARGE	11/18/2019
NEIL EMERTON	11/19/2019
YUQIAN ZHOU	11/18/2019

#### **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:	17755190					

#### **CORRESPONDENCE DATA**

Fax Number: (425)936-7329

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.

Phone: 4255389035

Email: usdocket@microsoft.com MICROSOFT CORPORATION **Correspondent Name:** 

Address Line 1: ONE MICROSOFT WAY

Address Line 4: **REDMOND, WASHINGTON 98052** 

ATTORNEY DOCKET NUMBER:	407520-US-PCT
NAME OF SUBMITTER:	CATHERINE POLANCE
SIGNATURE:	/Catherine Polance/
DATE SIGNED:	04/22/2022

#### **Total Attachments: 8**

source=2022-04-22 Executed Assignments 407520-US-PCT#page1.tif source=2022-04-22 Executed Assignments 407520-US-PCT#page2.tif source=2022-04-22 Executed Assignments 407520-US-PCT#page3.tif

source=2022-04-22 Executed Assignments 407520-US-PCT#page4.tif source=2022-04-22 Executed Assignments 407520-US-PCT#page5.tif source=2022-04-22 Executed Assignments 407520-US-PCT#page6.tif source=2022-04-22 Executed Assignments 407520-US-PCT#page7.tif source=2022-04-22 Executed Assignments 407520-US-PCT#page8.tif

I <u>Yonghuan David REN</u> ("ASSIGNOR") am the original inventor or an original joint

MS Docket No.: 407520-NL-NP

inventor	of	subject	matter	("INVENTION	۱") (	disclosed	and/or	claimed	in	a	patent
application	on e	entitled "	<u>'IMAGE</u>	SHARPENING	FOR	SUBJECTS	<u>IMAGEE</u>	THROL	<u>JGH</u>	DI	SPLAY"
("APPLICA	ATIC	N"), whic	ch:								

$\times$	will	be	filed.	ASSIGN	OR	hereb	/ a	uthoriz	zes,	and	requ	uests,
	ASSI	GNE	E'S lega	al represer	ntat	ive, Mi	cros	oft Te	chno	logy	Licer	ısing,
	LLC,	One	Micros	oft Way, R	edn	nond, V	Vash	ingtor	1 980	)52 (A	ASSIG	NEE'S
	LEGA	AL RE	EPRESEN	NTATIVES),	to i	insert h	ere	in pare	enthe	eses (	filed	on
Ν	loven	nber	25, 20 <sup>-</sup>	<u>9</u> and g	iver	n Appli	catio	n No.	2024	1302		by
	the f	follo	wing O	ffice <u>Ne</u>	ther	rlands f	ate	nt Offic	ce			_) this
	APPL	_ICA	TION's	Application	n I	No., fi	ling	date,	and	d Off	ice,	when
	knov	wn;										
	was	filed	on		a	ınd was	giv	en App	olicat	ion N	О	
	by th	ne fo	llowing	Office "							<u>"</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"));

Application No.	Filing Date	Office
PCT/US2020/059871	November 10, 2020	World Intellectual Property Organization
17/755,190	April 22, 2022	U.S. Patent and Trademark Office

MS Docket No.: <u>407520-NL-NP</u>

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).

Tonghuen David RZN Inventor's Signature	11/18/2019 Date
Yonghuan David REN	
Printed Name in English	Printed Name in Native Language
	(if other than English)

("APPLICATION"), which:

I <u>Timothy Andrew LARGE</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "IMAGE SHARPENING FOR SUBJECTS IMAGED THROUGH DISPLAY"

MS Docket No.: 407520-NL-NP

$\boxtimes$	will	be	filed.	ASSIC	SNOR	here	eby a	uthoriz	es, a	and re	quests,
	ASSI	GNE	E'S lega	al repre	sentat	tive,	Micros	oft Te	chnol	ogy Lic	ensing,
	LLC,	One	Micros	oft Way	, Redi	nond	, Wasł	nington	9805	52 (ASSI	GNEE'S
	LEGA	AL RE	EPRESE	NTATIVE	S), to	inser	t here	in pare	enthes	ses (file	d on
١	<u>lover</u>	nber	25, 20	<u>19    and</u>	d give	n App	olicatio	n No.	20243	302	by
	the	follo	wing O	ffice	<u>Nethe</u>	<u>rland</u>	s Pate	nt Offic	e		) this
	APPI	_ICA	TION's	Applica	ition	No.,	filing	date,	and	Office,	, when
	kno۱	wn;									
	was	filed	on			and w	as giv	en App	licatio	on No	

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"));

by the following Office "

Application No.	Filing Date	Office
PCT/US2020/059871	November 10, 2020	World Intellectual Property Organization
17/755,190	April 22, 2022	U.S. Patent and Trademark 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	11/18/2019 Date
Timothy Andrew LARGE	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I <u>Neil EMERT</u>	ON ("ASSI	GNOR") am	the	original	inventor	or an	origi	nal	joint
inventor of subject	matter (	("INVENTIOI	۷") di:	sclosed	and/or	claimed	in a	а ра	atent
application entitled	"IMAGE SH	<u> IARPENING</u>	FOR S	<u>SUBJECTS</u>	IMAGEE	<u>THROU</u>	JGH_	DISP	LAY"
("APPLICATION") wh	ich <sup>.</sup>								

MS Docket No.: <u>407520-NL-NP</u>

$\times$	will	be	filed.	ASSIGNOR	hereby	author	izes,	and	requ	iests,
	ASSI	GNE	E'S legal	representa	tive, Mic	rosoft T	echno	logy	Licen	ısing,
	LLC,	One	Microso	ft Way, Rec	lmond, W	ashingto	n 980	52 (A	SSIGI	NEE'S
	LEGA	L RE	PRESENT	ΓΑΤΙVES), to	insert he	ere in pa	renthe	ses (f	iled	on
	Nove	embe	er 25, 201	9 and give	en Applica	ation No	. 2024	302		by
	the f	ollo	wing Off	ice <u>Neth</u>	erlands P	atent Of	fice			) this
	APPL	ICA7	ΓΙΟΝ's Α	Application	No., fili	ng date	e, and	Off	ice,	when
	knov	vn;								
	was	filed	on		and was	given Ap	plicat	ion N	o	
	by th	ne fo	llowing (	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"));

Application No.	Filing Date	Office
PCT/US2020/059871	November 10, 2020	World Intellectual Property Organization
17/755,190	April 22, 2022	U.S. Patent and Trademark Office

MS Docket No.: <u>407520-NL-NP</u>

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).

Neil Baul	19 Novalu 2019
Inventor's Signature	Date
Neil EMERTON	
Printed Name in English	Printed Name in Native Language
	(if other than English)

1 <u>Y</u>	uqian ZHC	<u>DU</u> ("ASS	IGNOR")	am t	he	original	inventor	or	an	origi	inal	joint
inventor o	of subject	matter	("INVEN	TION"	) d	isclosed	and/or	clair	ned	in	a p	atent
application	n entitled	"IMAGE S	<u>SHARPEN</u>	<u>ING F</u>	OR	SUBJECT:	S IMAGEI	) TH	IROL	<u>IGH</u>	DIS	PLAY"
("APPLICA"	ΓΙΟΝ"), whi	ich:										

MS Docket No.: <u>407520-NL-NP</u>

$\times$	will	be	filed.	ASSIGNO	OR h	ereby	auth	orizes,	and	requ	ıests,
	ASSI	GNE	E'S lega	ıl represer	ıtative	e, Mici	rosoft	Techno	ology	Licen	ısing,
	LLC,	One	Micros	oft Way, R	edmo	nd, Wa	ashing	ton 980	)52 (A	ASSIGI	NEE'S
	LEGA	AL RE	EPRESEN	ITATIVES),	to ins	sert he	re in p	arenth	eses (	filed	on
Ν	loven	nber	25, 201	<u>9</u> and gi	iven A	Applica	ition N	lo. <u>202</u> 4	4302		by
	the f	follo	wing Of	fice <u>Ne</u> f	therla	nds Pa	atent C	Office			) this
	APPL	_ICA	TION's	Applicatio	n No	o., fili	ng da	te, and	d Off	ice,	when
	knov	wn;									
	was	filed	on		and	d was	given <i>i</i>	Applicat	tion N	О	
	by th	ne fo	llowing	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"));

Application No.	Filing Date	Office
PCT/US2020/059871	November 10, 2020	World Intellectual Property Organization
17/755,190	April 22, 2022	U.S. Patent and Trademark Office

MS Docket No.: <u>407520-NL-NP</u>

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).

Yuplan thou	11/18/2019
Inventor's Signature	Date
Yuqian ZHOU Printed Name in English	Printed Name in Native Language (if other than English)

RECORDED: 01/23/2025