PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KIM LAINE	06/07/2018
HAO CHEN	06/25/2018
PETER BYERLEY RINDAL	06/06/2018
ZHICONG HUANG	06/08/2018

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:	16008915

CORRESPONDENCE DATA

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Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER P.A.

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ATTORNEY DOCKET NUMBER:	404125-US-NP 1777.882US1
NAME OF SUBMITTER:	TYLYN MOORE
SIGNATURE:	/tylyn moore/
DATE SIGNED:	06/29/2018

Total Attachments: 9

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PATENT 504984307 REEL: 046238 FRAME: 0711



PATENT REEL: 046238 FRAME: 0712

Atty Ref/Docket No.: 404125-US-NP (1777.882US1)

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Pleas	
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):
Kim Laine, Hao Chen, Peter Byerley Rindal, Zhicong	Name: Microsoft Technology Licensing, LLC
Huang	Street Address: One Microsoft Way
Additional name(s) of conveying party(ies) attached?	City: <u>Redmond</u> State: <u>WA</u> Zip: <u>98052</u> Country: <u>United States of America</u>
[]Yes [X]No	Additional name(s) & address(es) attached? []Yes [X]No
3. Nature of conveyance:	
[X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other	
Execution Date: June 7, 2018, June 25, 2018, June 6, 2018, June 8, 2018	
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. 16/008,915	
Additional numbers attached? []Yes [X]No	
5. Name and address of party to whom correspondence concerning document should be mailed:	 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41):\$ 0.00
Name: <u>Gregory S. Rabin</u>	[]Enclosed
Address:	[]Authorized to be charged to deposit account 19-0743
Schwegman Lundberg & Woessner, P.A. P.O. Box 2938	
Minneapolis, Minnesota 55402	8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743
DO NOT USE T	THIS SPACE
9. Statement and signature. To the best of my knowledge and belief, the foregoing information of the original document.	tion is true and correct and any attached copy is a true copy
Crossery C. Pohin/Pag. No. 50.760	29 June 2018
Gregory S. Rabin/Reg. No. 59,760 Name of Person Signing	Signature Date
Total	number of pages including cover sheet: 9
Mail documents to be recorded with required cover sheet inform	mation to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450 I Kim Laine ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "COMPUTING A PRIVATE SET INTERSECTION", which:

\boxtimes	will be filed.	ASSIGNOR	hereby	authoria	zes, and	reque	sts,
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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

MS Docket No.: 404125-US-NP

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).

Kem Cae	June 7 2018
Inventor's Signature	Date
Kim Laine	
Printed Name in English	Printed Name in Native Language
	(if other than English)

	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 this
	APPLICATION's Application No., filing date, and Office, when known;
×	was filed on <u>June 14, 2018</u> and was given Application No <u>16/008,915</u> by the following Office " <u>US Patent Office</u> ";
	osoft Technology Licensing, LLC, a Washington limited liability company, or
behalf of its of acquiring priority, in t derived the	elf and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous g, the entire and exclusive rights, title and interest, including the right o the INVENTION and the APPLICATION (and all other applications and patents
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ALLO	06/25/18	
Inventor's Signature	Date	
Hao Chen		
Printed Name in English	Printed Name in Native Language	
	(if other than English)	

I Peter Byerley Rindal ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "COMPUTING A PRIVATE SET INTERSECTION", which:

\otimes	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
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	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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Inventor's Signature

Date

Peter Byerley Rindal

Printed Name in English

Printed Name in Native Language

(if other than English)

MS Docket No.: 404125-US-NP

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Page 1 of 2

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Thicong bluary	June 8, 2018	
Inventor's Signature	Date	
Zhicong Huang	黄智聪	
Printed Name in English	Printed Name in Native Language (if other than English)	