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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
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YINGNONG DANG	03/28/2016
DONGMEI ZHANG	03/25/2016
SONG GE	03/30/2016

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State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15139960

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ATTORNEY DOCKET NUMBER:	MS1-5130USC1
NAME OF SUBMITTER:	SAYBRA MORRIS
SIGNATURE:	/Saybra Morris/
DATE SIGNED:	04/27/2016

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CAPPLICATI	ON"), which:		:		
**	ASSIGNEE'S legal LLC., One Microsol LEGAL REPRESENT on the following Offic	ASSIGNOR hereby auth representative, Microsoft t Way, Redmond, Washing ATIVES), to insert here and given Application by US - United States Patents Application No., filling	Techno gton 980 in par i No t and Tri	logy Licensing. 52 (ASSIGNEE'S entheses (filed by udemark Office)	
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Application	ı No.	Filing Date	Office		

Page 1 of 2

PATENT ASSIGNMENT		MS Docket No.:					
			Attorney Docket No.: MS1-5130USC1				
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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).

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Inventor's Signature	Date
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Printed Name in English	Printed Name in Native Language (if other than English)

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一九败人	_ 5/00/000
Inventor's Signature	Date
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Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 331841.02 PATENT ASSIGNMENT Attorney Docket No.: MS1- 5430USC1 Dongmei Zhang _____("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled Frequent Pattern Mining ("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 ______ and given Application No. _____ by the following Office US - United States Patent and Trademark Office) this APPLICATION's Application No., filling 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;

Page 1 of 2

Filing Date

Office

Application No.

PATENT ASSIGNMENT	MS Docket No.:		
	Attorney Dock	et No.: MS1-5130USC1	
	AMP TO CONTRACT OF		

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"));

ASSICNOR 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).

Dogman Jang	Mar 25, 2016
Inventor's Signature	Date
Dongmei Zhang	
Printed Name in English	Printed Name in Native Language
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Page 1 of 2

PATENT ASSIGNMENT	MS Docket No.: Attorney Docket No.: MS1-5130USC1		

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")):

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