PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHRISTOPHER EVAN GRANADE	10/05/2018
JOHN KING GAMBLE IV	10/07/2018
NATHAN O. WIEBE	10/06/2018

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:	16154552

CORRESPONDENCE DATA

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Address Line 2: PATENT GROUP DOCKETING DEPT Address Line 4: **REDMOND, WASHINGTON 98052**

ATTORNEY DOCKET NUMBER:	405142-US-NP
NAME OF SUBMITTER:	VLADIMIR A. KOZYREV
SIGNATURE:	/VLADIMIR A. KOZYREV/
DATE SIGNED:	10/08/2018

Total Attachments: 6

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PATENT REEL: 047097 FRAME: 0107 505131409

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PATENT REEL: 047097 FRAME: 0108

PATENT ASSIGNMENT

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original join	t inventor of sub ication entitled	ject matter ("INV	NOR") am the original ENTION") disclosed and NING FOR QUANTUM	d/or claimed in a
	ASSIGNEE'S lega LLC, One Micros LEGAL REPRESEN	l representative, oft Way, Redmoni TATIVES), to Inse	eby authorizes, and Microsoft Technology d, Washington 98052 (<i>f</i> rt here in parentheses (plication No. <u>16/154,5</u>	Licensing, ASSIGNEE'S (filed on
	the following Of	fice	filing date, and Off) this
	was filed on by the following	and \ Office "	was given Application N	√o ";
behalf of its desirous of a right of prior patents deriv	elf and its succacquiring, the entity, in the INVENT yed therefrom, suited States	essors and assig tire and exclusive FION and the APPI ch as continuing	Vashington limited liab ins ("ASSIGNEE"), is en rights, title and intere LICATION (and all other applications, in whole all foreign countrie	ntitled to, and is est, including the applications and or in part, in and
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Application N	Vo.	Filing Date	Office	

Page 1 of 2

MS Docket No.: 405142-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).

162	5 Oct 2018
Inventor's Signature	Date
Christopher Evan GRANADE	
Printed Name in English	Printed Name in Native Language
	(if other than English)

PATENT ASSIGNMENT

MS Docket No.: 405142-US-NP

I John King GAMBLE IV (inventor of subject matter (application entitled "BAYESIAN which:	"INVENTION") disclosed	The state of the s
ASSIGNEE'S legal LLC, One Microso LEGAL REPRESENT	ASSIGNOR hereby auth representative, Microsoft ft Way, Redmond, Washing "ATIVES), to insert here in and given Application I	Technology Licensing, gton 98052 (ASSIGNEE'S parentheses (filed on
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behalf of itself and its succe desirous of acquiring, the enti- right of priority, in the INVENTI patents derived therefrom, suc- for the United States, its DERIVATIVES"));	ssors and assigns ("ASSI re and exclusive rights, ti ON and the APPLICATION h as continuing applicatio territories, and all fore authorizes, and requ	tle and interest, including the (and all other applications and ons, in whole or in part, in and ign countries ("APPLICATION") uests, ASSIGNEE'S LEGAL
following table for any APPLICA		
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).

	- 67 O.A. 2018
Inventor's Signature	Date
John King GAMBLE IV	
Printed Name in English	Printed Name in Native Language (if other than English)

PATE	ENT ASSIGNMEN	T MS Docket	No.: <u>405142-US-NP</u>
inventor of application e	subject matter	("INVENTION") disclosed	l inventor or an original join and/or claimed in a paten <u>OGIC GATES</u> " ("APPLICATION")
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MS Docket No.: 405142-US-NP

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metar /	10/6/18
Inventor's Signature	Date
Nathan O. WIEBE	
Printed Name in English	Printed Name in Native Language
	(if other than English)