504480809 07/31/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4527511

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
VIPUL AGARWAL	07/29/2017
PAUL ANTHONY CROOK	07/28/2017
IMED ZITOUNI	07/27/2017
MARIUS ALEXANDRU MARIN	07/28/2017

RECEIVING PARTY DATA

Name:	MICROSOFT TECHNOLOGY LICENSING, LLC
Street Address:	ONE MICROSOFT WAY
City:	REDMOND
State/Country:	WASHINGTON
Postal Code:	98052-6399

PROPERTY NUMBERS Total: 1

Property Type	Number				
Application Number:	15664124				

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.

Phone: 425-707-9382

Email: usdocket@microsoft.com

Correspondent Name: MICROSOFT CORPORATION

Address Line 1: ONE MICROSOFT WAY

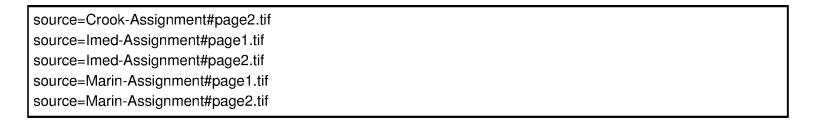
Address Line 4: REDMOND, WASHINGTON 98052

ATTORNEY DOCKET NUMBER:	402605-US-NP
NAME OF SUBMITTER:	JEFFREY L. RANCK
SIGNATURE:	/Jeffrey L. Ranck/
DATE SIGNED:	07/31/2017

Total Attachments: 8

source=Agarwal-Assignment#page1.tif source=Agarwal-Assignment#page2.tif source=Crook-Assignment#page1.tif

PATENT 504480809 REEL: 043143 FRAME: 0604



PATENT REEL: 043143 FRAME: 0605

I <u>Vipul Agarwal</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>Knowledge Graph For Conversational Semantic Search</u>" ("APPLICATION"), which:

\boxtimes	will be filed.	ASSIGNOR hereby	authorizes,	and requests,
	ASSIGNEE'S lega	l representative, Mic	rosoft Techno	ology Licensing,
	LLC, One Micros	oft Way, Redmond, W	ashington 980/	DS2 (ASSIGNEE'S
	LEGAL REPRESE	NTATIVES), to inser	t hère in pai	rentheses (filed
	on	and given App	lication No	by
	the following	Office		
	APPLICATION'S A	application No., filing	date, and Offic	te, when known;
	was filed on	and was	given Applica	tion
		by the following		
	"	ss,		

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

Page 1 of 2

PATENT ASSIGNMENT

MS Docket No.: 402605-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).

	God Acowal	07/29/2017.
	Inventor's Signature	Date
**************************************	Vipul Agarwal Printed Name in English	Printed Name in Native Language (if other than English)

I <u>Paul Anthony Crook</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>Knowledge Graph For Conversational Semantic Search</u>" ("APPLICATION"), which:

X	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
	APPLICATION's Application No., filing date, and Office, when known;
	was filed on and was given Application
	No by the following Office
	u n.

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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Application No.	ariam and an	Filing Date	Office	
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Phy	7/28/2017
Inventor's Signature	Date
Paul Anthony Crook	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I <u>Imed Zitouni</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "Knowledge Graph For Conversational Semantic Search" ("APPLICATION"), which:

X	will be filed.						
	ASSIGNEE'S legal r						
	LLC, One Microsoft						
	LEGAL REPRESENT						
	on						
	the following Of						
	APPLICATION'S App	olication No	., filing c	late, and	Office, whe	n kno	own;
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ш					11150(1011		
	No	by the ii	onowing.	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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Application No.	Filing Date	Office	

Page 1 of 2

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Inventor's Signature

Date

Imed Zitouni

Printed Name in English

rinted 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	joint invent	or of subject matt entitled " <u>Knowl</u> e	er ("INVENTION") d	n the original invent lisclosed and/or clai <u>Conversational Se</u>	imed in a paten
Noby the following Office		ASSIGNEE'S legal LLC, One Microso LEGAL REPRESEN on the following (representative, Mi oft Way, Redmond, V TATIVES), to inser and given App Office	crosoft Technology Washington 98052 (A rt here in parenthe Dication No.	Licensing, ASSIGNEE'S eses (filed by) this
Microsoft Technology Licensing, LLC, a Washington limited liability company, of 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 patent 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 REPRESENTATIVE to insert the Application No., filing date, and Office into the following table for an APPLICATION DERIVATIVES after they are known;		No	by the following		
to insert the Application No., filing date, and Office into the following table for an APPLICATION DERIVATIVES after they are known;	behalf of itse of acquiring priority, in the derived there	elf and its successo , the entire and ex ne INVENTION and efrom, such as cor	rs and assigns ("ASS cclusive rights, title the APPLICATION (a ntinuing application	ilGNEE"), is entitled to e and interest, includ and all other applicat is, in whole or in par	o, and is desirous ding the right o ions and patents rt, in and for the
	to insert the	Application No.,	filing date, and Of		
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Page 1 of 2

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Invantar's Sagatura

Marius Alexandru Marin

Printed Name in English

07/28/2017

Date

MARIUS ALEXANDRU MARIN

Printed Name in Native Language (if other than English)