505659325 09/06/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5706130

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SUBMISSION IS TO CORRECT ERRORS IN INVENTORS DARVISH ROUHANI AND LO NAMES IN A COVER SHEET PREVIOUSLY RECORDED ON REEL 047893, FRAME 0484. THE DOCUMENT TO BE RECORDED IS NOT A DOCUMENT AFFECTING TITLE.

### **CONVEYING PARTY DATA**

Name	Execution Date
BITA DARVISH ROUHANI	12/13/2018
TAESIK NA	12/14/2018
ERIC S. CHUNG	12/14/2018
DANIEL LO	12/13/2018
DOUGLAS C. BURGER	12/17/2018

### **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:	16223603

### CORRESPONDENCE DATA

**Fax Number:** (503)595-5301

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:** 5035955300

**Email:** valerie.sullivan@klarquist.com

Correspondent Name: MARK WILSON / KLARQUIST SPARKMAN, LLP

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Address Line 2: ONE WORLD TRADE CENTER
Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	3382-101558-01
NAME OF SUBMITTER:	MARK W. WILSON
SIGNATURE:	/ Mark W. Wilson /
DATE SIGNED:	09/06/2019

# Total Attachments: 11 source=101558-01\_Assignment#page1.tif source=101558-01\_Assignment#page2.tif source=101558-01\_Assignment#page3.tif source=101558-01\_Assignment#page4.tif source=101558-01\_Assignment#page5.tif source=101558-01\_Assignment#page6.tif source=101558-01\_Assignment#page7.tif source=101558-01\_Assignment#page8.tif source=101558-01\_Assignment#page9.tif source=101558-01\_Assignment#page10.tif source=101558-01\_Assignment#page11.tif

### 505260976 01/03/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

**EPAS ID: PAT5307748** 

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
BITA DARVISH ROUHANI	12/13/2018
TAESIK NA	12/14/2018
ERIC S. CHUNG	12/14/2018
DANEIL LO	12/13/2018
DOUGLAS C. BURGER	12/17/2018

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ONE WORLD TRADE CENTER Address Line 2: Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	3382-101558-01
NAME OF SUBMITTER:	KARL G. MEIER
SIGNATURE:	/Karl G. Meier/
DATE SIGNED:	01/03/2019
	-

**Total Attachments: 10** 

inventor of subject application entitled	h Rouhani ("ASSIGNOR matter ("INVENTION") "TRAINING NEURAL NI DRMATS" ("APPLICATIO	disclosed and/or ETWORK ACCELE	
leg Mic REF and Uni	al representatives, of N crosoft Way, Redmond,	Microsoft Techno Washington 980 ert here in paren by t Trademark Offic	e) this APPLICATION's
			plication Noby and Trademark Office";
behalf of itself and desirous of acquiring right of priority, in patents derived the	its successors and ass ng, the entire and excl the INVENTION and th	igns ("ASSIGNEE usive rights, title e APPLICATION ( nuing application	n limited liability company, on "), is entitled to, and is e and interest, including the (and all other applications and is, in whole or in part,in and ries ("APPLICATION
to insert the Applic		and Office into t	NEE'S LEGAL REPRESENTATIVES he following table for any
Application No.	Filing D	ate	Office
			***************************************

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to

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).

& Bila Darvish Rouhani	12/13/2018
Inventor's Signature	Date
Bita Darvish Rouhani	چینا درو بیش رومانی
Printed Name in English	Printed Name In Native Language (if
	other than English)

I, Taesik Na ("ASSIGNOR"), of subject matter ("INVENTION") entitled "TRAINING NEURAL NETV FORMATS" ("APPLICATION"), which	disclosed and/or claimed WORK ACCELERATORS USI	• • •
legal representa Microsoft Way, R REPRESENTATIVE and given Applic United States Pa	tives, of Microsoft Techno Ledmond, Washington 980	2)52 (ASSIGNEE'S LEGAL theses (filed on, ne following Office:  e) this APPLICATION's
	and was given App fice "United States Patent a	olication No by and Trademark Office";
Microsoft Technology Lice behalf of itself and its successor desirous of acquiring, the entire right of priority, in the INVENTIC patents derived therefrom, such for the United States, its territori DERIVATIVES"));	s and assigns ("ASSIGNEE" and exclusive rights, title IN and the APPLICATION (a as continuing application	and interest, including the and all other applications and s, in whole or in part,in and
·	<u>.                                      </u>	IEE'S LEGAL REPRESENTATIVES ne following table for any
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

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to

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).

Tassife Na Inventor's Signature	12/14/2018 Date
Taesik Na Printed Name in English	Printed Name in Native Language (if other than English)

I, Eric S. Chung ("ASSIGNO inventor of subject matter ("INVE application entitled "TRAINING N	, , , , , , , , , , , , , , , , , , ,	claimed in a patent
PRECISION DATA FORMATS" ("AP	PLICATION"), which:	
legal representa Microsoft Way, R REPRESENTATIVE and given Applic United States Pa	tives, of Microsoft Technol Redmond, Washington 980	52 (ASSIGNEE'S LEGAL heses (filed on, e following Office:  2) this APPLICATION's
	and was given App fice "United States Patent a	•
behalf of itself and its successor desirous of acquiring, the entire right of priority, in the INVENTIC patents derived therefrom, such for the United States, its territor DERIVATIVES"));	s and assigns ("ASSIGNEE", and exclusive rights, title ON and the APPLICATION (a as continuing applications ies, and all foreign countri	and interest, including the and all other applications and s, in whole or in part,in and
to insert the Application No., fili APPLICATION DERIVATIVES after	ng date, and Office into th	
Application No.	Filing Date	Office

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| Date | Date | Printed Name in English | Printed Name in Native Language (if

other than English)

of subject matter ("IN\	iSIGNOR"), am the original inv /ENTION") disclosed and/or c URAL NETWORK ACCELERATO ION"), which:	laimed in a patent applic	cation
legal r Micros REPRE and gi United	filed. ASSIGNOR hereby autiepresentatives, of Microsoft foft Way, Redmond, Washingt SENTATIVES) to insert here in ven Application No.	Technology Licensing, Licon 98052 (ASSIGNEE'S Laction parentheses (filed on	LC, One EGAL ' e:
the fol Microsoft Techr behalf of itself and its desirous of acquiring, right of priority, in the	ed on and was givelowing Office "United States Inclogy Licensing, LLC, a Wash successors and assigns ("ASS the entire and exclusive right INVENTION and the APPLICA rom, such as continuing apple	Patent and Trademark O nington limited liability c SIGNEE"), is entitled to, a ts, title and interest, incl TION (and all other appl	ffice"; ompany, on nd is luding the ications and
	ts territories, and all foreign		
to insert the Application	by authorizes, and requests, and No., filing date, and Office IVES after they are known;		
Application No.	Filing Date	Office	

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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).

111	(2/13/18
Inventor's Signature	Date
Daniel Lo	
Printed Name in English	Printed Name in Native Language (if
	other than English)

I, Douglas C. Burger ("Inventor of subject matter ("Il application entitled "TRAININ PRECISION DATA FORMATS" (	NVENTION") disclosed G NEURAL NETWORK A	ACCELERATORS USING MIXED
legal represe Microsoft Wa REPRESENTAT and given Ap United States	ntatives, of Microsoft y, Redmond, Washing (IVES) to insert here in plication No	horizes, and requests, ASSIGNEE'S Technology Licensing, LLC, One ton 98052 (ASSIGNEE'S LEGAL n parentheses (filed on, by the following Office: k Office) this APPLICATION's fice, when known;
		ven Application No by Patent and Trademark Office";
behalf of itself and its success desirous of acquiring, the en- right of priority, in the INVEN	sors and assigns ("ASS tire and exclusive righ TION and the APPLICA uch as continuing app	hington limited liability company, o SIGNEE"), is entitled to, and is its, title and interest, including the ATION (and all other applications ar lications, in whole or in part,in and countries ("APPLICATION
ASSIGNOR hereby auth	orizes, and requests,	ASSIGNEE'S LEGAL REPRESENTATIVE
• •	· ·	into the following table for any
APPLICATION DERIVATIVES af	ter they are known;	
Application No.	Filing Date	Office

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Inventor's Signature

Douglas C. Burger

Printed Name in English

Printed Name in Native Language (if other than English)

PATENT REEL: 050301 FRAME: 0482

RECORDED: 09/06/2019