PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4910309

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHAD BALLING MCBRIDE	03/21/2018
AMOL ASHOK AMBARDEKAR	03/12/2018
KENT D. CEDOLA	03/13/2018
GEORGE PETRE	03/12/2018
LARRY MARVIN WALL	04/10/2018
BORIS BOBROV	03/12/2018

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:	15950550

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.

Email: usdocket@microsoft.com
Correspondent Name: NEWPORT IP, LLC

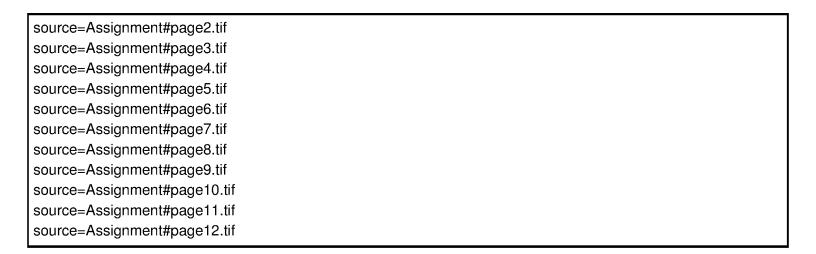
Address Line 1: 1400 112TH AVE SE, SUITE 100
Address Line 4: BELLEVUE, WASHINGTON 98004

ATTORNEY DOCKET NUMBER:	MS1-9177US
NAME OF SUBMITTER:	PAOLA SEVERICH
SIGNATURE:	/Paola Severich/
DATE SIGNED:	04/11/2018

Total Attachments: 12 source=Assignment#page1.tif

PATENT REEL: 045507 FRAME: 0324

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PATENT REEL: 045507 FRAME: 0325

Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

I <u>Chad Balling McBRIDE</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "POWER-EFFICIENT DEEP NEURAL NETWORK MODULE CONFIGURED FOR LAYER AND OPERATION FENCING AND DEPENDENCY MANAGEMENT" ("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 <u>US - United States</u>
Patent and Trademark Office) this APPLICATION's Application No.
filing 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"));

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Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

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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).

mventor's Signature

Date

Chad Balling McBRIDE

Printed Name in English

Printed Name in Native Language

(if other than English)

Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

I <u>Amol Ashok AMBARDEKAR</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "POWER-EFFICIENT DEEP NEURAL NETWORK MODULE CONFIGURED FOR LAYER AND OPERATION FENCING AND DEPENDENCY MANAGEMENT" ("APPLICATION"), which:

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Page 1 of 2

Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

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Amol Ashok AMBARDEKAR
Printed Name in English

Amol Ashok Printed Name in Native Language

(if other than English)

Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

I <u>Kent D. CEDOLA</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "POWER-EFFICIENT DEEP NEURAL NETWORK MODULE CONFIGURED FOR LAYER AND OPERATION FENCING AND DEPENDENCY MANAGEMENT" ("APPLICATION"), which:

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Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

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Inventor's Signature	<u> </u>
Kent D. CEDOLA	
Printed Name in English	Printed Name in Native Language (if other than English)

Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

I <u>George PETRE</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "POWER-EFFICIENT DEEP NEURAL NETWORK MODULE CONFIGURED FOR LAYER AND OPERATION FENCING AND DEPENDENCY MANAGEMENT" ("APPLICATION"), which:

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Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

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W.	3/12/2018
Inventor's Signature	Dåte
George PETRE	
Printed Name in English	Printed Name in Native Language
	(if other than English)

Client Docket No.: <u>403831-US-NP</u> Attorney Docket No.: <u>MS1-9177US</u>

I <u>Larry Marvin WALL</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "POWER-EFFICIENT DEEP NEURAL NETWORK MODULE CONFIGURED FOR LAYER AND OPERATION FENCING AND DEPENDENCY MANAGEMENT" ("APPLICATION"), which:

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Larry M Wall	April 10, 2018
mventor)s signature	Date
Larry Marvin WALL	
Printed Name in English	Printed Name in Native Language
	(if other than English)

Client Docket No.: 403831-US-NP Attorney Docket No.: MS1-9177US

I <u>Boris BOBROV</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "POWER-EFFICIENT DEEP NEURAL NETWORK MODULE CONFIGURED FOR LAYER AND OPERATION FENCING AND DEPENDENCY MANAGEMENT" ("APPLICATION"), which:

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Page 1 of 2

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Inventor's Signature

Boris 808ROV

Printed Name in English

Date

Printed Name in Native Language

(if other than English)