505788908 11/22/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5835736

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AMRITA MATHURIYA	10/15/2018
SASIKANTH MANIPATRUNI	02/14/2011
VICTOR LEE	10/15/2018
HUSEYIN SUMBUL	10/13/2018
GREGORY CHEN	10/15/2018
RAGHAVAN KUMAR	10/15/2018
PHIL KNAG	10/15/2018
RAM KRISHNAMURTHY	10/15/2018
IAN YOUNG	11/08/2018
SHARMA ABHISHEK	11/07/2018

RECEIVING PARTY DATA

Name:	INTEL CORPORATION
Street Address:	2200 MISSION COLLEGE BOULEVARD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16160800

CORRESPONDENCE DATA

Fax Number: (603)218-6622

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: 5203396522

Email: ipadmin@gtpp.com

Correspondent Name: EDMUND P. PFLGER

Address Line 1:7660 E. BROADWAY, STE. 207Address Line 4:TUCSON, ARIZONA 85710

ATTORNEY DOCKET NUMBER: AB3360-US

PATENT REEL: 051092 FRAME: 0345

505788908

NAME OF SUBMITTER:	EDMUND P. PFLEGER
SIGNATURE:	/Edmund P. Pfleger/
DATE SIGNED:	11/22/2019
Total Attachments: 16	
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ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

AMRITA MATHURIYA
SASIKANTH MANIPATRUNI
VICTOR LEE
HUSEYIN SUMBUL
GREGORY CHEN
RAGHAVAN KUMAR
PHIL KNAG
RAM KRISHNAMURTHY
IAN YOUNG
SHARMA ABHISHEK

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

IN-MEMORY ANALOG NEURAL CACHE

(I hereby authorize and request any attorned designated lines below, the filing date and appeared to the filing date appeared to the filing date and appeared to the filing date appeared to the filing da	y having appropriate oplication number of s	authority from the assign said application when kno	ec to insert on the
which was filed on October	15, 2018	as	
<u>United States</u> COUNTRY or International Office	Application Number	16160800	and

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below, and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements; and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the

Page 1 of 3

Amrita Matuuria	oct 15th 2018
AMRIT MATHURIYA	Date signed
SASIKANTH MANIPATRUNI	Date signed
VICTOR LEE	Date signed
HUSEYIN SUMBUL	Date signed
GREGORY CHEN	Date signed
RAGHAVAN KUMAR	Date signed
PHIL KNAG	Date signed
RAM KRISHNAMURTHY	Date signed

Page 2 of 3

IAN YOUNG	Date signed	
SHARMA ABHISHEK	Date signed	

Page 3 of 3

EMPLOYMENT AGREEMENT

In exchange for being employed by Intel Corporation or any of its subsidiaries, affiliates or successors (collectively called "Intel" in this Agreement), I agree to the following: 1. General Conduct.

I will perform my assigned Intel duties and comply with all Intel policies, procedures, guidelines, rules, and instructions, including Intel's Code of Conduct and Corporate Information Security & Security policies.

2. Prior Third Party Information.

I will not bring to Intel, nor use as part of my Intel work, any proprietary or confidential information of any former employer or third party without their written authorization.

3. Confidential Information.

During and after my Intel employment, I will hold in strict confidence and not disclose or use any Confidential Information connected with Intel business or the business of any of Intel's suppliers, customers, employees, or contractors unless (i) such disclosure or use is required in connection with my Intel work, (ii) such information becomes lawfully and publicly known outside Intel, or (iii) an Intel officer expressly authorizes such disclosure or use in advance and in writing. For purposes of this Agreement, Confidential Information includes, without limitation: technical information (e.g. roadmaps, schematics, source code, specifications), business information (e.g. product information, marketing strategies, markets, sales, customers, customer lists or phone books), personnel information (e.g. organizational charts, employee lists, skill sets, names or phone numbers, personnel files, employee compensation) and other non-public Intel data and information of a similar nature. I understand and agree that all Confidential Information that I acquire in connection with my Intel employment is Intel's exclusive property. I agree to return to Intel all of its Confidential Information (hard or soft copies; originals and copies) either at the termination of my Intel employment or upon Intel's request. I agree to return to Intel all of its Confidential Information (hard or soft copies; originals and copies) either at the termination of my Intel employment or upon Intel's request. I agree to return to Intel all of its Confidential Information (hard or soft copies; originals and copies) either at the termination of my Intel employment or upon Intel's request. I agree to return to Intel all of its Confidential Information intelled and information of my Intel employment or upon Intel's request. I are return to Intel and a specific performance.

4. Ownership of Proprietary Developments.

Except as provided in the next sentence, I agree that all trade secrets, copyrights, mask works, trademarks, inventions (including service inventions), discoveries, designs, formulae, processes, methods, manufacturing techniques, improvements, ideas, copyrightable works, and other intellectual property which I create, invent or discover alone or with others during my Intel employment, (collectively "Proprietary Developments") are Intel's sole property from the moment of their creation, invention or discovery. This shall not apply to an invention that I develop entirely on my own time without using Intel equipment, supplies, facilities, or trade secret information, except for those inventions that either: (1) relate at the time of conception or reduction to practice of the invention to Intel business, or actual or demonstrably anticipated research or development of the Intel; or (2) result from any work performed by me for Intel. I agree that Intel has and shall always have sole legal and equitable title to all Proprietary Developments and I have no right to compensation for such Proprietary Developments. I agree to promptly disclose Proprietary Developments to Intel, and to the full extent allowed by law, but only to the extent not already owned by Intel pursuant to this Agreement and applicable law, hereby assign to Intel all rights in the Proprietary Developments. I agree that during and after my employment with Intel I will provide all assistance that Intel reasonably requests to secure or enforce its rights throughout the world with respect to Proprietary Developments, including signing all necessary documents to secure or memorialize those rights. If I fail or refuse to sign documents necessary to secure or enforce Intel's rights, or if Intel cannot locate me through the exercise of reasonable diligence, I irrevocably appoint Intel or its designee as my attorney to sign such documents in my name. I waive any rights that I may have in any Proprietary Developments and, to the extent that such waiver is ineff

5. Licensed and Non-Licensed Preexisting Employee Intellectual Property.

I have listed in Appendix A any intellectual property that I own or control, in whole or in part, that I had created prior to my employment with Intel and that I intend to exclude from licensing to Intel ("Preexisting Employee Intellectual Property"). I have listed in Appendix A any Preexisting Employee Intellectual Property for which I have an economic interest in, but for which I do not have the right to grant a license to Intel. I grant Intel a non-exclusive, non-transferable (except within Intel), perpetual, irrevocable, royalty-free, world-wide license to all of my Preexisting Employee Intellectual Property, except for that which I have specifically listed in Appendix A, with the right to sublicense, to make, have made, use, sell, offer to sell, import, reproduced, prepare derivative works of, distribute, and otherwise dispose of, any product or document, under all patents, trade secrets, copyrights and copyrightable works, mask works, trademarks, inventions, discoveries, designs, formulae, processes, methods, manufacturing techniques, improvements, and ideas. This license only excludes the Preexisting Employee Intellectual Property I have specifically listed in Appendix A if I have provided sufficient detail to identify its subject matter, and Appendix A is submitted prior to the start of my employment. I agree that if I fail to make any required disclosure or breach any term of sections 4 and 5, any applicable limitations periods shall be tolled and shall not run as to any claim, right, or cause of action Intel may have relating to such disclosure or breach any term of sections 4 and 5, any applicable limitations periods shall be tolled and shall not run as to any claim, right, or cause of action Intel may have relating to such disclosure or breach that would have been discovered had the required disclosure been made, until such time as Intel obtains actual knowledge of the facts giving rise to such claim. Nothing contained in this section shall limit other remedies otherwise available in law or equity t

6. Non-solicitation.

Lagree that for 12 (twelve) months after my employment ends, I will not solicit, directly or indirectly, any employee to leave his/her employment with Intel. This includes identifying Intel employees or providing employee compensation or skill information to any third party. Lagree that any violation of this provision will result in immediate and ineparable injuries and harm to Intel, and that Intel shall have the option of pursuing all available legal or equitable remedies, including injunctive relief and specific performance.

7. Computer Communications Are Not Private.

Lacknowledge that use of Intel's computer systems is not private or confidential. Lunderstand and consent to Intel's right to review any communications to or from my work computer, pager, phone or other electronic device and all computer information, including any password-protected employee communications.

8. Miscellaneous.

I understand that if Intel Corporation is not my Employer, Intel is signing this Agreement as agent for the Intel Group company that is my Employer. I understand and agree that my employment with Intel is "at will." This means that both Intel and I have the right to terminate my employment at any time, with or without advance notice and with or without cause (provided, however, that if I become employed by Intel in a non-U.S. location, local termination law will apply if inconsistent with this Agreement). The Agreement's terms and conditions are severable. If any part of this Agreement is found or held to be unenforceable in any jurisdiction in which this Agreement is being performed, such provision shall be enforced to the greatest extent permitted by law, and the remainder of this Agreement and such provision as applied to other persons, places or circumstances shall remain in full force and effect. This Agreement: (a) survives my employment with Intel; (b) inures to the benefit of successors and assigns of Intel; and (c) is binding upon my heirs, assigns, and legal representatives. I am not a partly to any other agreement which will interfere with my full compliance with this Agreement, except as I have specifically identified in this Agreement. This Agreement may not be modified or amended except in writing, signed by the parties. Only the Vice President of Human Resources, Intel Corporation, or the General Counsel of Intel Corporation, or their delegate, has the authority to modify this agreement on behalf of Intel. This Agreement is effective the first day of my employment with Intel, and supersedes any prior Employee Agreement signed by me with Intel. I have carefully read all of the provisions of this Agreement and I understand and will fully and faithfully comply with all provisions.

Intel Corporation	Employee	
Magrical	Sasikanth Manipatruni	2/14/11
		2/14/11
A. Douglas Melamed General Counsel	Signature	Date
	Sasikanth Manipatruni	
	Printed Name & WWID # (please print clearly)	

Distribution: White Copy - US Records CH2-171 Yellow Copy - Employee Pink Copy - CH2-171

EmploymentAgreement.DOC (rev. 4/2010)

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

AMRITA MATHURIYA
SASIKANTH MANIPATRUNI
VICTOR LEE
HUSEYIN SUMBUL
GREGORY CHEN
RAGHAVAN KUMAR
PHIL KNAG
RAM KRISHNAMURTHY
IAN YOUNG
SHARMA ABHISHEK

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

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which was filed on October	15, 2018	as	
<u>United States</u> COUNTRY or International Office	Application Number	16160800	and

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below, and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements; and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the

Page 1 of 3

AMRIT MATHURIYA	Date signed
SASIKANTH MANIPATRUNI	Date signed
	10/15/12
VICTOR LEE	10 / 15 / 18 Date signed
HUSEYIN SUMBUL	Date signed
GREGORY CHEN	Date signed
RAGHAVAN KUMAR	Date signed
	A Section 1
PHIL KNAG	Date signed
RAM KRISHNAMURTHY	Date signed

Page 2 of 3

IAN YOUNG	Date signed	
3		
SHARMA ABHISHEK	Date signed	1 1

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Page 1 of 3

AMRIT MATHURIYA	Date signed
SASIKANTH MANIPATRUNI	Date signed
VICTOR LEE	Date signed 10/13/2018
HUSEYIN SUMBUL	Date signed
GREGORY CHEN	Date signed
RAGHAVAN KUMAR	Date signed
PHIL KNAG	Date signed
RAM KRISHNAMURTHY	Date signed

Page 2 of 3

IAN YOUNG	Date signed
SHARMA ABHISHEK	Date signed

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	AMRIT MATHURIYA	Date signed
	SASIKANTH MANIPATRUNI	Date signed
	VICTOR LEE	Date signed
	HUSEYIN SUMBUL	Date signed
		-/5 0ct 20/8
×	GREGORY CHEN	Date signed
	L. lypower	10 /15/18
	RAGHAYAN KUMAR	Date signed
	The Know	10/15/2018
	PHIL KNAG	Date signed
	<u> </u>	10/15/2018
	RAM KRISHNAMURTHY	Date signed

	IAN YOUNG	Date signed	
سيد.			
	SHARMA ABHISHEK	Date signed	
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and the second of the second o			

Page 3 of 3

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COUNTRY or International Office

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which was filed on	10-15-2018	30	
United States	Application Xirahar	16/160,800	فديد

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Page 1 of 3

AMRIT MATHURIYA		Date signed	
SASIKANTH MANIPATRUNI		Date signed	~::
VICTOR LEE		Date signed	***************************************
UNIOTENIA CHINADURI	. ,		
HUSEYIN SUMBUL		Date signed	
GREGORY CHEN	~	Date signed	**********
RAGHAVAN KUMAR	· 4	Date signed	
PHIL KNAG		Date signed	**********
RAM KRISHNAMURTHY	: .	Date signed	
THE WAY STANGED STANGES IN I		ryste signed	
	. ~		********

Page 2 of 3

IAN YOUNG

SHARMA ABHISHEK

Attorney Docket No.: AB3360-US

Date signed

11/20/3018

Date signed