

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI602169

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Bill of Sale
CONVEYING PARTY DATA	
Name	Execution Date
Amazon.com Services LLC	10/11/2024
RECEIVING PARTY DATA	
Company Name:	Amazon Technologies, Inc.
Street Address:	410 Terry Avenue North
City:	Seattle
State/Country:	WASHINGTON
Postal Code:	98109
PROPERTY NUMBERS Total: 198	
Property Type	Number
Application Number:	62199560
Application Number:	15224632
Application Number:	16812361
Application Number:	17828020
Application Number:	62295110
Application Number:	17187638
Application Number:	18407173
Application Number:	62365253
Application Number:	15671105
Application Number:	62427739
Application Number:	15825030
Application Number:	17962789
Application Number:	18787715
Application Number:	62431478
Application Number:	15836694
Application Number:	62492940
Application Number:	15815222
Application Number:	15815251
Application Number:	17894798
Application Number:	62599013

PATENT

Property Type	Number
Application Number:	15901456
Application Number:	15901459
Application Number:	16852329
Application Number:	17514701
Application Number:	62611923
Application Number:	15869990
Application Number:	15870020
Application Number:	15870046
Application Number:	15870070
Application Number:	16591591
Application Number:	18737459
Application Number:	15921633
Application Number:	15921630
Application Number:	62660914
Application Number:	62724589
Application Number:	16120386
Application Number:	16120387
Application Number:	16924360
Application Number:	17316639
Application Number:	18384529
Application Number:	62627407
Application Number:	15921622
Application Number:	17982488
Application Number:	62654529
Application Number:	16376637
Application Number:	17671557
Application Number:	15231787
Application Number:	15396267
Application Number:	62372182
Application Number:	15836676
Application Number:	15815253
Application Number:	15921634
Application Number:	18241885
Application Number:	62720647
Application Number:	62756037
Application Number:	16246112
Application Number:	16246130
Application Number:	16246142

Property Type	Number
Application Number:	16246150
Application Number:	16246182
Application Number:	16246191
Application Number:	17665567
Application Number:	62742802
Application Number:	62773162
Application Number:	16212617
Application Number:	16212618
Application Number:	16212621
Application Number:	16212622
Application Number:	16212616
Application Number:	17982474
Application Number:	62753878
Application Number:	62773164
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Application Number:	16212642
Application Number:	17984228
Application Number:	62775886
Application Number:	62926382
Application Number:	16684128
Application Number:	16698942
Application Number:	18667960
Application Number:	62792123
Application Number:	62797910
Application Number:	16355653
Application Number:	16355656
Application Number:	16355659
Application Number:	16355648
Application Number:	18384576
Application Number:	62796029
Application Number:	62798364
Application Number:	16427302
Application Number:	17827625
Application Number:	18595161
Application Number:	62838629
Application Number:	16453622

Property Type	Number
Application Number:	16453619
Application Number:	62851082
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Application Number:	16525445
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Application Number:	16717926
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Application Number:	62886888
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Application Number:	18377818
Application Number:	62913707
Application Number:	16780842
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Application Number:	62888413
Application Number:	62901740
Application Number:	16584890
Application Number:	16584891
Application Number:	16584888
Application Number:	18405440
Application Number:	62880475
Application Number:	16596187
Application Number:	18542537
Application Number:	62949082
Application Number:	62955349

Property Type	Number
Application Number:	16923001
Application Number:	16923002
Application Number:	62933960
Application Number:	17093278
Application Number:	17093285
Application Number:	17093296
Application Number:	62975539
Application Number:	16923003
Application Number:	16923004
Application Number:	16923006
Application Number:	63065472
Application Number:	17089653
Application Number:	17089660
Application Number:	17089648
Application Number:	63117976
Application Number:	17199220
Application Number:	17199221
Application Number:	63117375
Application Number:	17532903
Application Number:	63178933
Application Number:	17306744
Application Number:	17306745
Application Number:	17306742
Application Number:	63178889
Application Number:	63189516
Application Number:	17696810
Application Number:	17696812
Application Number:	17696819
Application Number:	17696809
Application Number:	63243686
Application Number:	17543471
Application Number:	17543474
Application Number:	17543446
Application Number:	63242184
Application Number:	63252132
Application Number:	17861091
Application Number:	17861095
Application Number:	17861090

Property Type	Number
Application Number:	63294571
Application Number:	18088725
Application Number:	18088726
Application Number:	18088727
Application Number:	63388044
Application Number:	18115553
Application Number:	63400639
Application Number:	18115579
Application Number:	18115580
Application Number:	18115581
Application Number:	63437098
Application Number:	63438630
Application Number:	18115616
Application Number:	18115618
Application Number:	18115622
Application Number:	63464334
Application Number:	18402135
Application Number:	63547196
Application Number:	63636091
Application Number:	63616453
Application Number:	18416265
Application Number:	18416266
Application Number:	18416268
Application Number:	63572232
Application Number:	18824090
Application Number:	18824034

CORRESPONDENCE DATA

Fax Number: 7043317598

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: 7043317400

Email: sepatents@klgates.com,tricia.walker@klgates.com

Correspondent Name: David Easwaran

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Address Line 2: Ste 1000

Address Line 4: Charlotte, NORTH CAROLINA 28202

ATTORNEY DOCKET NUMBER: 2040741.03817

NAME OF SUBMITTER: Tricia Walker

SIGNATURE:	Tricia Walker
DATE SIGNED:	10/31/2024
Total Attachments: 8 source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page1.tiff source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page2.tiff source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page3.tiff source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page4.tiff source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page5.tiff source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page6.tiff source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page7.tiff source=2024-10-11 - AZ Services-AZ Tech - Executed Patent Assignment#page8.tiff	

BILL OF SALE

This BILL OF SALE AGREEMENT (this “*Agreement*”), effective as of October 16, 2024 (the “*Effective Date*”), is by and between Amazon.com Services LLC, a Delaware limited liability company (“*Seller*”), and Amazon Technologies, Inc., a Nevada corporation (“*Buyer*”).

1. Pursuant to, and subject to the effectiveness of each of the following, in consecutive order starting with item a and ending with item b:
 - a. Distribution Agreement, effective as of the Effective Date (the “*Distribution Agreement*”), by and between Seller and Amazon.com Sales, Inc., a Delaware corporation (“*ASF*”); and
 - b. Contribution Agreement, effective as of the Effective Date, by and between ASI and Buyer.

Seller hereby irrevocably and unconditionally conveys, transfers, and assigns to Buyer all of Seller’s right, title and interest in and to the Property (as hereinafter defined), the goodwill associated therewith and the right to sue for and recover damages for any past, present or future infringement of the Property, the same to be held and enjoyed by Buyer for its own use and enjoyment, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

2. “*Property*” as used herein is the Perceive Intellectual Property, as defined in Distribution Agreement, which includes, but is not limited to, the items listed on Exhibit A attached hereto.
3. Title and risk shall pass to Buyer as of the Effective Date of this Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have caused this Bill of Sale to be executed on the dates set forth below.

AMAZON.COM SERVICES LLC

By: DocuSigned by:
Gayle Tagawa
F5BE8D4A68994E4...
Name: Gayle Tagawa
Title: Authorized Signatory
Date Signed: October 11, 2024

Address:
410 Terry Avenue North
Seattle, WA 98109

AMAZON TECHNOLOGIES, INC.

By: DocuSigned by:
Kurt Lamp
A0893DCAB5384F2...
Name: Kurt Lamp
Title: Vice President
Date Signed: October 11, 2024

Address:
410 Terry Avenue North
Seattle, WA 98109

EXHIBIT A

PERCEIVE INTELLECTUAL PROPERTY

Patents:

Current Assignee	Patent Status	Country Code	Application #	Filing Date	Publication #	Publication Date	Patent #	Grant Date	Terminal Disclaimer?	Title	All Inventors
Perceive Corporation	Lapsed	US	62/199,560	7/31/2015						TECHNIQUE FOR MITIGATING OVERFITTING IN NEURAL NETWORK	TEIG, Steven L.
Perceive Corporation	In Force	US	15/224,632	7/31/2016			10,586,151	3/10/2020		MITIGATING OVERFITTING IN TRAINING MACHINE TRAINED NET	TEIG, Steven L.
Perceive Corporation	In Force	US	16/812,361	3/8/2020			11,348,006	5/31/2022	Terminal disclaimer over 10,586,151	MITIGATING OVERFITTING IN TRAINING MACHINE TRAINED NET	TEIG, Steven L.
Perceive Corporation	Pending	US	17/828,020	5/30/2022	20220292359	9/15/2022				MITIGATING OVERFITTING IN TRAINING MACHINE TRAINED NET	TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/795,110	2/14/2016						MACHINE LEARNING THROUGH MULTIPLE LAYERS OF NOVEL	M/TEIG, Steven L.
Perceive Corporation	In Force	US	15/231,789	8/9/2016			10,936,951	3/2/2021		MACHINE LEARNING THROUGH MULTIPLE LAYERS OF NOVEL	M/TEIG, Steven L.
Perceive Corporation	In Force	US	15/231,787	8/9/2016			10,867,247	12/15/2020		MACHINE LEARNING THROUGH MULTIPLE LAYERS OF NOVEL	M/TEIG, Steven L.
Perceive Corporation	In Force	US	17/187,638	2/26/2022	20210182689	6/17/2021	11,868,898	1/9/2024	Terminal disclaimer over 10,936,951	MACHINE LEARNING THROUGH MULTIPLE LAYERS OF NOVEL	M/TEIG, Steven L.
Perceive Corporation	Pending	US	18/407,173	1/8/2024						MACHINE LEARNING THROUGH MULTIPLE LAYERS OF NOVEL	M/TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/365,253	7/21/2016						MACHINE LEARNING APPARATUSES, SYSTEMS, ASSEMBLIES AND	TEIG, Steven L.; HABBA, Belgacem; MOHAMMED, Ilyas
Perceive Corporation	Lapsed	US	15/396,267	12/30/2016	20180025268	1/25/2018				CONFIGURABLE MACHINE LEARNING ASSEMBLIES FOR AUTONO	TEIG, Steven L.; HABBA, Belgacem; MOHAMMED, Ilyas
Perceive Corporation	Lapsed	US	62/572,182	8/8/2016						MACHINE TRAINED PROCESSING NETWORK OPERATING IN THE	ITEIG, Steven L.; NEQUIST, Eric M.
Perceive Corporation	Pending	US	15/671,105	8/7/2017						MACHINE TRAINED PROCESSING NETWORK OPERATING IN THE	ITEIG, Steven L.; NEQUIST, Eric M.
Perceive Corporation	Lapsed	US	62/427,739	11/29/2016						MACHINE TRAINED NETWORK	TEIG, Steven L.
Perceive Corporation	In Force	US	15/825,030	11/28/2017			11,475,310	10/18/2022		TRAINING NETWORK TO MINIMIZE WORST-CASE ERROR	TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	In Force	US	17/962,789	10/10/2022	20230040889	2/9/2023	12,051,000	7/30/2024		TRAINING NETWORK TO MINIMIZE WORST-CASE ERROR	TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	Pending	US	18/787,715	7/29/2024						TRAINING NETWORK TO MINIMIZE WORST-CASE ERROR	TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	Lapsed	US	62/431,478	12/8/2016						MACHINE TRAINED NETWORK USING NOVEL CODING TECHNIQL	TEIG, Steven L.
Perceive Corporation	In Force	US	15/836,676	12/8/2017			12,001,948	6/4/2024		MACHINE TRAINED NETWORK USING NOVEL CODING TECHNIQL	TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	Pending	US	15/836,694	12/8/2017						MACHINE TRAINED NETWORK USING NOVEL CODING TECHNIQL	TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	Lapsed	US	62/492,940	5/1/2017						MACHINE-TRAINED NETWORK WITH DISCRETE WEIGHT VALUES	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	15/815,222	11/16/2017			11,113,603	9/7/2021		TRAINING NETWORK WITH DISCRETE WEIGHT VALUES	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	15/815,235	11/16/2017			11,429,861	8/30/2022		DEVICE STORING MULTIPLE SETS OF PARAMETERS FOR MACHIN	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	15/815,251	11/16/2017			11,017,295	5/25/2021		DEVICE STORING TERNARY WEIGHT PARAMETERS FOR MACHIN	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Pending	US	17/894,798	8/24/2022	20220405591	12/22/2022				TRAINING NETWORK WITH DISCRETE WEIGHT VALUES	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Lapsed	US	62/599,013	12/14/2017						USING TRIPLETS TO TRAIN A NETWORK	SATHER, Eric A.; TEIG, Steven L.
Perceive Corporation	In Force	US	15/901,456	2/21/2018			10,671,888	6/2/2020		USING BATCHES OF TRAINING ITEMS FOR TRAINING A NETWORK	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	In Force	US	15/901,459	2/21/2018			10,592,732	3/17/2020		PROBABILISTIC LOSS FUNCTION FOR TRAINING NETWORK WITH	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	In Force	US	16/852,329	4/17/2020	20200250476	8/6/2020	11,163,986	11/2/2021	Terminal disclaimer over 10,671,888	USING BATCHES OF TRAINING ITEMS FOR TRAINING A NETWORK	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	In Force	US	17/514,701	10/27/2021	20220051002	2/17/2022	11,741,369	8/29/2023	Terminal disclaimer over 11,163,986	USING BATCHES OF TRAINING ITEMS FOR TRAINING A NETWORK	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
Perceive Corporation	Allowed	US	18/238,507	8/27/2023	20230409918	12/21/2023			Terminal disclaimer over 11,741,369	USING BATCHES OF TRAINING ITEMS FOR TRAINING A NETWORK	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	Lapsed	US	62/611,923	12/29/2017						MACHINE-TRAINED NETWORK FOR MISALIGNMENT-INSENSITIV	TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	In Force	US	15/869,990	1/12/2018			10,453,220	10/22/2019		MACHINE-TRAINED NETWORK FOR MISALIGNMENT-INSENSITIV	TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	In Force	US	15/870,020	1/12/2018			10,742,959	8/11/2020		USE OF MACHINE-TRAINED NETWORK FOR MISALIGNMENT-IN	TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	In Force	US	15/870,046	1/12/2018			11,043,006	6/22/2021		USE OF MACHINE-TRAINED NETWORK FOR MISALIGNMENT IDE	TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	In Force	US	15/870,070	1/12/2018			12,008,465	6/11/2024		DYNAMIC GENERATION OF DATA SETS FOR TRAINING MACHINE	TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	In Force	US	16/591,591	10/2/2019			11,373,325	6/28/2022		MACHINE-TRAINED NETWORK FOR MISALIGNMENT-INSENSITIV	MIHAL, Andrew; TEIG, Steven L.
ceive Corporation	Pending	US	18/737,459	6/7/2024						DYNAMIC GENERATION OF DATA SETS FOR TRAINING MACHINE	TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	In Force	US	15/921,633	3/14/2018			11,995,537	5/28/2024		TRAINING NETWORK WITH BATCHES OF INPUT INSTANCES	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	Pending	US	15/921,634	3/14/2018						TRAINING NETWORK TO MAXIMIZE TRUE POSITIVE RATE AT LOW	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	In Force	US	15/921,630	3/14/2018			11,586,902	2/21/2023		TRAINING NETWORK TO MINIMIZE WORST CASE SURPRISE	SATHER, Eric A.; TEIG, Steven L.; MIHAL, Andrew
ceive Corporation	Lapsed	US	62/660,914	4/20/2018						REDUCED DOT PRODUCT COMPUTATION CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
ceive Corporation	In Force	US	62/724,589	8/29/2018						REDUCED DOT PRODUCT COMPUTATION CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
ceive Corporation	In Force	US	16/120,387	9/3/2018			10,740,434	8/11/2020		REDUCED DOT PRODUCT COMPUTATION CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
ceive Corporation	In Force	US	16/120,386	9/3/2018			10,977,338	4/13/2021		REDUCED-AREA CIRCUIT FOR DOT PRODUCT COMPUTATION	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
ceive Corporation	In Force	US	16/924,360	7/9/2020	20200342046	10/29/2020	11,003,736	5/11/2021	Terminal disclaimer over 10,740,434	REDUCED DOT PRODUCT COMPUTATION CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
ceive Corporation	In Force	US	17/316,639	5/10/2021	20210263995	8/26/2021	11,809,515	11/7/2023	Terminal disclaimer over 10,740,434	REDUCED DOT PRODUCT COMPUTATION CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
ceive Corporation	Pending	US	18/384,529	10/27/2023	20240070225	2/29/2024				REDUCED DOT PRODUCT COMPUTATION CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
ceive Corporation	Lapsed	US	62/627,407	2/7/2018						TRAINING SPARSE NETWORKS WITH DISCRETE WEIGHT VALUES	TEIG, Steven L.; SATHER, Eric A.

PATENT

REEL: 069288 FRAME: 0500

Current Assignee	Patent Status	Country Code	Application #	Filing Date	Publication #	Publication Date	Patent #	Grant Date	Terminal Disclaimer?	Title	All Inventors
Perceive Corporation	In Force	US	15/921,622	3/14/2018		3/16/2023	11,537,870	12/27/2022		TRAINING SPARSE NETWORKS WITH DISCRETE WEIGHT VALUES	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Pending	US	17/982,448	11/7/2022	20230084673					TRAINING SPARSE NETWORKS WITH DISCRETE WEIGHT VALUES	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Lapsed	US	62/654,529	4/9/2018						MACHINE-TRAINED NETWORK DETECTING CONTEXT-SENSITIVE	TEIG, Steven L.
Perceive Corporation	In Force	US	16/376,637	4/5/2019			11,250,840	2/15/2022		MACHINE-TRAINED NETWORK DETECTING CONTEXT-SENSITIVE	TEIG, Steven L.
Perceive Corporation	In Force	US	17/671,557	2/14/2022			11,749,263	9/5/2023	Terminal disclaimer over 11,250,840	MACHINE-TRAINED NETWORK DETECTING CONTEXT-SENSITIVE	TEIG, Steven L.
Perceive Corporation	Pending	US	18/241,885	9/3/2023	20230419955	12/28/2023				MACHINE-TRAINED NETWORK DETECTING CONTEXT-SENSITIVE	TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/720,647	8/21/2018						COMPRESSIVE SENSING BASED IMAGE CAPTURE DEVICE	MOHAMMED, Ilyas
Perceive Corporation	Lapsed	US	62/756,037	11/5/2018						COMPRESSIVE SENSING BASED IMAGE CAPTURE DEVICE	MOHAMMED, Ilyas
Perceive Corporation	In Force	US	16/246,112	1/11/2019			10,937,196	3/2/2021		COMPRESSIVE SENSING BASED IMAGE CAPTURE DEVICE	MOHAMMED, Ilyas
Perceive Corporation	In Force	US	16/246,130	1/11/2019			10,863,127	12/8/2020		COMPRESSIVE SENSING BASED IMAGE CAPTURE USING MULTI-L	MOHAMMED, Ilyas
Perceive Corporation	In Force	US	16/246,142	1/11/2019			10,887,537	1/5/2021		COMPRESSIVE SENSING BASED IMAGE CAPTURE USING DYNAMI	MOHAMMED, Ilyas
Perceive Corporation	In Force	US	16/246,150	1/11/2019			10,885,674	1/5/2021		TRAINING NETWORK FOR COMPRESSIVE SENSING BASED IMAGE	MOHAMMED, Ilyas
Perceive Corporation	In Force	US	16/246,182	1/11/2019			11,244,477	2/8/2022		COMPRESSIVE SENSING BASED IMAGE PROCESSING	MOHAMMED, Ilyas
Perceive Corporation	In Force	US	16/246,191	1/11/2019			11,094,090	8/17/2021		COMPRESSIVE SENSING BASED IMAGE CAPTURE USING DIFFRAC	MOHAMMED, Ilyas
Perceive Corporation	Pending	US	17/665,567	2/6/2022						COMPRESSIVE SENSING BASED IMAGE PROCESSING	MOHAMMED, Ilyas
Perceive Corporation	Lapsed	US	62/742,802	10/8/2018						NEURAL NETWORK INFERENCE CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/773,162	11/29/2018						NEURAL NETWORK INFERENCE CIRCUIT	DUONG, Kenneth; TEIG, Steven L.; KO, Jung
Perceive Corporation	In Force	US	16/212,617	12/6/2018			11,170,289	11/9/2021		COMPUTATION OF NEURAL NETWORK NODE BY NEURAL NETW	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,618	12/6/2018			11,341,397	5/24/2022	Terminal disclaimer over 16/212,617	COMPUTATION OF NEURAL NETWORK NODE	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,621	12/6/2018			11,361,213	6/14/2022		USING LOOKUP TABLE TO REPRESENT NEURAL NETWORK	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,622	12/6/2018			11,205,115	12/21/2021		NEURAL NETWORK INFERENCE CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,616	12/6/2018			11,501,138	11/15/2022		CONTROL CIRCUITS FOR NEURAL NETWORK INFERENCE CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	Pending	US	17/982,474	11/7/2022	20230063274	3/2/2023			Terminal disclaimer over 11,170,289	COMPUTATION OF NEURAL NETWORK NODE BY NEUTAL NETW	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/753,878	10/31/2018						DOT PRODUCT COMPUTATIONS ON NEURAL NETWORK INFEREN	DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/773,164	11/29/2018						DOT PRODUCT COMPUTATIONS ON NEURAL NETWORK INFEREN	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,643	12/6/2018			11,250,326	2/15/2022		SPLITTING NEURAL NETWORK FILTERS FOR IMPLEMENTATION	B KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,645	12/6/2018			11,531,727	12/20/2022		COMPUTATION OF NEURAL NETWORK NODE WITH LARGE INPU	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,646	12/6/2018			11,295,200	4/5/2022		TIME-MULTIPLIED DOT PRODUCTS FOR NEURAL NETWORK INI	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	In Force	US	16/212,642	12/6/2018			11,403,530	8/2/2022		USING QUINARY WEIGHTS WITH NEURAL NETWORK INFERENCE	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	Allowed	US	17/984,228	11/9/2022	20230076850	3/9/2023			Terminal disclaimer over 11,531,727	COMPUTATION OF NEURAL NETWORK NODE WITH LARGE INPU	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/775,886	12/5/2018						DUPPLICATION OF NEURAL NETWORK LAYERS	TEIG, Steven L.; SATHER, Eric A.
ceive Corporation	Lapsed	US	62/926,382	10/25/2019						REPLICATION OF NEURAL NETWORK LAYERS	TEIG, Steven L.; SATHER, Eric A.
ceive Corporation	In Force	US	16/684,128	11/14/2019			11,995,533	5/28/2024		EXECUTING REPLICATED NEURAL NETWORK LAYERS ON INFERE	SATHER, Eric A.; TEIG, Steven L.
ceive Corporation	In Force	US	16/698,942	11/27/2019			11,604,973	3/14/2023		REPLICATION OF NEURAL NETWORK LAYERS	SATHER, Eric A.; TEIG, Steven L.
ceive Corporation	Pending	US	18/667,960	5/17/2024						EXECUTING REPLICATED NEURAL NETWORK LAYERS ON INFERE	SATHER, Eric A.; TEIG, Steven L.
ceive Corporation	Lapsed	US	62/797,910	1/28/2019						NEURAL NETWORK INFERENCE CIRCUIT ACTIVATION VALUE STO	KO, Jung; TEIG, Steven L.; DUONG, Kenneth
ceive Corporation	In Force	US	16/355,653	3/15/2019			11,531,868	12/20/2022		NEURAL NETWORK INFERENCE CIRCUIT ACTIVATION VALUE STO	KO, Jung; TEIG, Steven L.; DUONG, Kenneth
ceive Corporation	In Force	US	16/355,656	3/15/2019			11,481,612	10/25/2022		INPUT VALUE CACHE FOR TEMPORARILY STORING INPUT VALUE	KO, Jung; TEIG, Steven L.; DUONG, Kenneth
ceive Corporation	In Force	US	16/355,659	3/15/2019			11,468,145	10/11/2024		STORAGE OF INPUT VALUES ACROSS MULTIPLE CORES OF NEUR	KO, Jung; TEIG, Steven L.; DUONG, Kenneth
ceive Corporation	In Force	US	16/355,648	3/15/2019			11,886,979	1/30/2024		STORAGE OF INPUT VALUES WITHIN CORE OF NEURAL NETW	KO, Jung; TEIG, Steven L.; DUONG, Kenneth
ceive Corporation	Pending	US	18/384,576	10/27/2023	20240062054	2/22/2024				SHIFTING INPUT VALUES WITHIN INPUT BUFFER OF NEURAL NEI	KO, Jung; TEIG, Steven L.; DUONG, Kenneth
ceive Corporation	Lapsed	US	62/796,029	1/23/2019						STORAGE OF INPUT VALUES ACROSS MULTIPLE CORES OF NEUR	KO, Jung; TEIG, Steven L.; DUONG, Kenneth
ceive Corporation	Lapsed	US	62/798,364	1/29/2019						NEURAL NETWORK INFERENCE CIRCUIT EMPLOYING DYNAMIC N	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
ceive Corporation	In Force	US	16/427,302	5/30/2019			11,347,297	5/31/2022		NEURAL NETWORK INFERENCE CIRCUIT EMPLOYING DYNAMIC N	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
ceive Corporation	In Force	US	17/827,625	5/27/2022	20220291739	9/15/2022	11,921,561	3/5/2024	Terminal disclaimer over 11,347,297	NEURAL NETWORK INFERENCE CIRCUIT EMPLOYING DYNAMIC N	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
ceive Corporation	Pending	US	18/595,161	3/4/2024						NEURAL NETWORK INFERENCE CIRCUIT EMPLOYING DYNAMIC N	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
ceive Corporation	Lapsed	US	62/838,629	4/25/2019						MODIFICATION OF MACHINE-TRAINED NETWORK HYPERPARAM	SATHER, Eric A.; TEIG, Steven L.
ceive Corporation	In Force	US	16/453,622	6/26/2019			11,531,879	12/20/2022		ITERATIVE TRANSFER OF MACHINE-TRAINED NETWORK INPUTS	SATHER, Eric A.; TEIG, Steven L.

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Current Assignee			Patent Status	Country Code	Application #	Filing Date	Publication #	Publication Date	Patent #	Grant Date	Terminal Disclaimer?		Title	All Inventors
Perceive Corporation	Pending	US	16/453,619	6/26/2019									MODIFICATION OF MACHINE-TRAINED NETWORK HYPERPARAM	SATHER, Eric A.; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/851,082	5/21/2019									COMPILER FOR OPTIMIZING NEURAL NETWORK IMPLEMENTATI	TEIG, Steven L.; THOMAS, Brian
Perceive Corporation	Lapsed	US	62/866,599	6/25/2019									COMPILER FOR OPTIMIZING NEURAL NETWORK IMPLEMENTATI	Brian; TEIG, Steven L.
Perceive Corporation	Allowed	US	16/525,445	7/29/2019					11,868,901	1/9/2024			COMPILER FOR OPTIMIZING MEMORY ALLOCATIONS WITHIN C	THOMAS, Brian; TEIG, Steven L.
Perceive Corporation	In Force	US	16/525,449	7/29/2019					11,615,322	3/28/2023			COMPILER FOR OPTIMIZING MEMORY SHUTDOWN FOR NEUTHO	THOMAS, Brian; TEIG, Steven L.
Perceive Corporation	In Force	US	16/525,456	7/29/2019									COMPILER FOR IMPLEMENTING GATING FUNCTIONS FOR NEUR	THOMAS, Brian; TEIG, Steven L.
Perceive Corporation	Pending	US	16/525,460	7/29/2019									COMPILER FOR IMPLEMENTING FILTER SPARSITY FOR NEURAL	THOMAS, Brian; TEIG, Steven L.
Perceive Corporation	In Force	US	16/525,466	7/29/2019					11,625,585	4/11/2023			COMPILER FOR PERFORMING ZERO-CHANNEL REMOVAL	THOMAS, Brian; TEIG, Steven L.
Perceive Corporation	In Force	US	16/525,469	7/29/2019					11,941,533	3/26/2024			ENCODING OF WEIGHT VALUES STORED ON NEURAL NETWORK	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/853,128	5/27/2019									ENCODING OF WEIGHT VALUES STORED ON NEURAL NETWORK	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/457,756	6/28/2019					11,049,013	6/29/2021			WEIGHT VALUE DECODER OF NEURAL NETWORK INFERENCE C	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/457,757	6/28/2019					11,210,586	12/28/2021			WEIGHT VALUE DECODER OF NEURAL NETWORK INFERENCE C	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	Allowed	US	17/550,177	12/14/2021									BUS FOR TRANSPORTING OUTPUT VALUES OF NEURAL NETW	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/873,804	7/12/2019									BUS FOR TRANSPORTING OUTPUT VALUES OF NEURAL NETW	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	Allowed	US	16/537,481	8/9/2019									BUS FOR TRANSPORTING OUTPUT VALUES OF NEURAL NETW	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	In Force	US	16/537,478	8/9/2019					11,586,910	2/21/2023			WRITE CACHE FOR NEURAL NETWORK INFERENCE CIRCUIT	DUONG, Kenneth; KO, Jung; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/946,188	12/10/2019									NEURAL NETWORK INFERENCE CIRCUIT READ CONTROLLER W	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	16/717,926	12/17/2019					11,568,227	1/31/2023			ADDRESS DECODING BY NEURAL NETWORK INFERENCE CIRCU	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Pending	US	16/717,925	12/17/2019									NON-DOT PRODUCT COMPUTATIONS ON NEURAL NETWORK I	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/886,888	8/14/2019									NON-DOT PRODUCT COMPUTATIONS ON NEURAL NETWORK I	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	In Force	US	16/547,506	8/21/2019					11,222,257	1/11/2022			DATA TRANSFER FOR NON-DOT PRODUCT COMPUTATIONS ON	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	In Force	US	16/547,505	8/21/2019					11,783,167	10/10/2023			DATA TRANSFER FOR NON-DOT PRODUCT COMPUTATIONS ON	KO, Jung; DUONG, Kenneth; TEIG, Steven L.
Perceive Corporation	Pending	US	18/377,818	10/8/2023	20240046081								HYPERPARAMETER MODIFICATION	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Lapsed	US	62/913,707	10/10/2019									REDUCING COMPLEXITY OF MACHINE-TRAINED NETWORK	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	16/780,842	2/3/2020					11,900,238	2/13/2024			OPTIMIZING LOSS FUNCTION DURING TRAINING OF NETWORK	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Allowed	US	16/780,843	2/3/2020									PREVENTING OVERFITTING OF HYPERPARAMETERS DURING	TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	16/780,841	2/3/2020					11,610,154	3/21/2023			NEURAL NETWORKS WITH SPATIAL AND TEMPORAL FEATURES	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Lapsed	US	62/888,413	8/16/2019									NEURAL NETWORKS WITH SPATIAL AND TEMPORAL FEATURES	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Lapsed	US	62/901,740	9/17/2019									NEURAL NETWORKS WITH SPATIAL AND TEMPORAL FEATURES	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	16/584,890	9/26/2019					11,620,495	4/4/2023			CIRCUIT FOR EXECUTING STATEFUL NEURAL NETWORK	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	16/584,891	9/26/2019					11,868,871	1/9/2024			VIDEO DENOISING USING NEURAL NETWORKS WITH SPATIAL	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	16/584,888	9/26/2019					11,151,695	10/19/2021			CIRCUIT FOR EXECUTING STATEFUL NEURAL NETWORK	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Pending	US	18/405,440	1/5/2024	20240153044				5/9/2024				QUANTIZING NEURAL NETWORKS	SATHER, Eric A.; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/880,475	7/30/2019									QUANTIZING NEURAL NETWORKS USING SHIFTING AND SCAL	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	In Force	US	16/596,177	10/8/2019	20210034982				2/4/2021	11,847,568	12/19/2023		QUANTIZING NEURAL NETWORKS USING APPROXIMATE QUANT	SATHER, Eric A.; TEIG, Steven L.
Perceive Corporation	In Force	US	16/596,187	10/8/2019	20210034955				2/4/2021	11,494,657	11/8/2022		QUANTIZING NEURAL NETWORKS USING SHIFTING AND SCAL	MIHAL, Andrew; TEIG, Steven L.; SATHER, Eric A.
Perceive Corporation	Pending	US	18/543,537	12/15/2023	20240193426				6/13/2024				TRAINING A NEURAL NETWORK WITH QUANTIZED WEIGHTS	DRIMBAREAN, Alexandru; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/949,082	12/17/2019									TRAINING A NEURAL NETWORK WITH QUANTIZED WEIGHTS	DRIMBAREAN, Alexandru; TEIG, Steven L.
Perceive Corporation	Lapsed	US	62/955,349	12/30/2019					11,995,555	5/28/2024			INITIALIZATION OF VALUES FOR TRAINING A NEURAL NETW	DRIMBAREAN, Alexandru; TEIG, Steven L.
Perceive Corporation	In Force	US	16/923,001	7/7/2020									STORING OF INTERMEDIATE COMPUTED VALUES FOR SUBSE	TEIG, Steven L.; CASSIDY, Ryan J.
Perceive Corporation	Allowed	US	16/923,002	7/7/2020									STORING OF INTERMEDIATE COMPUTED VALUES FOR SUBSE	TEIG, Steven L.; CASSIDY, Ryan J.
Perceive Corporation	Lapsed	US	62/933,960	11/11/2019									STORING OF INTERMEDIATE COMPUTED VALUES FOR SUBSE	TEIG, Steven L.; CASSIDY, Ryan J.
Perceive Corporation	In Force	US	17/093,278	11/9/2020					11,948,067	4/2/2024	Terminal disclaimer over 17/093,296		LOSS-AWARE REPLICATION OF NEURAL NETWORK LAYERS	SATHER, Eric A.; TEIG, Steven L.; DRIMBAREAN, Alexandru
Perceive Corporation	Pending	US	17/093,285	11/9/2020							Terminal disclaimers over 11,948,067 and 11,941,511		LOSS-AWARE REPLICATION OF NEURAL NETWORK LAYERS	SATHER, Eric A.; TEIG, Steven L.; DRIMBAREAN, Alexandru
Perceive Corporation	In Force	US	17/093,296	11/9/2020					11,941,511	3/26/2024	Terminal disclaimer over 17/093,278		OPTIMIZING GLOBAL SPARSITY FOR NEURAL NETWORK	SATHER, Eric A.; TEIG, Steven L.
Perceive Corporation	In Force	US	62/975,539	2/12/2020					11,847,567	12/19/2023			BATCH NORMALIZATION FOR REPLICATED LAYERS OF NEUR	N SATHER, Eric A.; TEIG, Steven L.
Perceive Corporation	Lapsed	US	16/923,003	7/7/2020										
Perceive Corporation	Allowed	US	16/923,004	7/7/2020										
Perceive Corporation	In Force	US	16/923,006	7/7/2020					12,045,725	7/23/2024				

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