

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6708766

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
BRIAN BLANK	05/05/2021
MADHUSUDAN RANA	05/05/2021
PAVITHRAN RAJENDRAN	05/05/2021
RECEIVING PARTY DATA	
Name:	THE BANK OF NEW YORK MELLON
Street Address:	ONE WALL STREET
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10286
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17319806
CORRESPONDENCE DATA	
Fax Number:	(703)770-7901
<i>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.</i>	
Phone:	703-770-7900
Email:	docket_ip@pillsburylaw.com, BARBIE.BEAVERS@PILLSBURYLAW.COM
Correspondent Name:	PILLSBURY WINTHROP SHAW PITTMAN, LLP
Address Line 1:	PO BOX 10500
Address Line 4:	MCLEAN, VIRGINIA 22102
ATTORNEY DOCKET NUMBER:	201818-0561281
NAME OF SUBMITTER:	BARBIE BEAVERS
SIGNATURE:	/BARBIE BEAVERS/
DATE SIGNED:	05/13/2021
This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 8	
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ATTORNEY DOCKET NUMBER: 201818-0512284

**DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN
APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT**

Title of Invention: **SYSTEM AND METHOD FOR OPTIMIZING DATA PROCESSING IN CLOUD-BASED, MACHINE LEARNING ENVIRONMENTS THROUGH THE USE OF SELF ORGANIZING MAP**

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

☒ [X] United States application or PCT international application number 16/901,887 filed on June 15, 2020.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WHEREAS, the undersigned inventor(s) (hereinafter "Assignor"), has/have made an invention entitled
"SYSTEM AND METHOD FOR OPTIMIZING DATA PROCESSING IN CLOUD-BASED, MACHINE LEARNING ENVIRONMENTS THROUGH THE USE OF SELF ORGANIZING MAP" disclosed in the above-identified patent application, and

WHEREAS, **ASSIGNEE** (hereinafter "Assignee"), a corporation of **THE BANK OF NEW YORK MELLON**, having a place of business at **One Wall Street, New York, NY 10286, U.S.A.**, is desirous of acquiring the entire right, title and interest in and to the aforesaid invention, application and all Letters Patent of the United States or any foreign country, including continuations, continuations-in-part, reissues, reexaminations, extensions, substitutes, and divisions which may be granted therefor;

NOW THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the said Assignor, by these presents do sell, assign and transfer unto Assignee, its successors, legal representatives and assigns, the full and exclusive right in and to the said invention as described in the said application, and in and to any Letters Patent of the United States or any foreign country, including continuations, continuations-in-part, reissues, reexaminations, extensions, substitutes, and divisions which may be granted therefor and all rights to claim priority on the basis of said application; and I further grant to Assignee the sole right to sue and collect damages for past infringement;

AND I HEREBY authorize and request the Commissioner of Patents and Trademarks or any other proper officer or agency of any country to issue all said Letters Patent to said Assignee;

ATTORNEY DOCKET NUMBER: 201818-0512284

AND I HEREBY warrant and covenant that I have the full right to convey the entire interest herein assigned and that I have not executed and will not execute any instrument or assignment in conflict herewith;

AND I HEREBY agree to communicate to said Assignee or its representatives any facts known to me respecting said invention, to execute all divisional, continuation, reissue, reexamination, extension, substitute, and foreign applications, sign all lawful documents and make all rightful oaths and declarations relating to said invention, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors, legal representatives or assigns, and to testify in any judicial or administrative proceeding and generally do everything possible to aid the said Assignee to obtain and enforce said Letters Patent in the United States or any foreign country when requested so to do by said Assignee.

(1) Legal Name of Inventor: **Brian BLANK**

DocuSigned by:
Signature: Brian Blank Date: 5/5/2021
A7CD732489C743A...

(2) Legal Name of Inventor: **Song HE**

Signature: _____ Date: _____

(3) Legal Name of Inventor: **Madhusudan RANA**

DocuSigned by:
Signature: Madhusudan Rana Date: 5/5/2021
D5088CB5F3E8492...

(4) Legal Name of Inventor: **Pavithran RAJENDRAN**

DocuSigned by:
Signature: Pavithran Rajendran Date: 5/5/2021
72F8AB6A7A9549E...

(5) Legal Name of Inventor: **Bryan CHAN**

Signature: _____ Date: _____

**SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY
OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)**

Title of Invention	SYSTEM AND METHOD FOR OPTIMIZING DATA PROCESSING IN CLOUD-BASED, MACHINE LEARNING ENVIRONMENTS THROUGH THE USE OF SELF ORGANIZING MAP		
This statement is directed to:			
<input type="checkbox"/> The attached application,			
OR			
<input checked="" type="checkbox"/> United States application or PCT international application number <u>16/901,887</u> filed on <u>6/15/2020</u>			
LEGAL NAME of inventor to whom this substitute statement applies:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
Song HE			
Residence (except for a deceased or legally incapacitated inventor):			
City	Warren	State	NJ
		Country	US
Mailing Address (except for a deceased or legally incapacitated inventor):			
26 Sycamore Way			
City	Warren	State	NJ
		Zip	07059
		Country	US
I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.			
The above-identified application was made or authorized to be made by me.			
I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.			
Relationship to the inventor to whom this substitute statement applies:			
<input type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),			
<input type="checkbox"/> Assignee,			
<input checked="" type="checkbox"/> Person to whom the inventor is under an obligation to assign,			
<input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or			
<input type="checkbox"/> Joint Inventor.			

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitute statement:

- ☐ Inventor is deceased,
- ☐ Inventor is under legal incapacity,
- ☒ Inventor cannot be found or reached after diligent effort, or
- ☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.

OR

- ☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

Name: **Lawrence Miller** Date (Optional): **5/13/2021**

DocuSigned by:

Signature: *Lawrence Miller***APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

If the applicant is a juristic entity, list the applicant name and the title of the signer:

The Bank of New York Mellon

Applicant Name:

Title of Person Executing
This Substitute Statement: **Sr. Managing Counsel**

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

City **New York** State **NY** Country **US**

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)**240 Greenwich Street**

City **New York** State **NY** Zip **10286** Country **US**

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

**SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY
OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)**

Title of Invention	SYSTEM AND METHOD FOR OPTIMIZING DATA PROCESSING IN CLOUD-BASED, MACHINE LEARNING ENVIRONMENTS THROUGH THE USE OF SELF ORGANIZING MAP		
This statement is directed to:			
<input type="checkbox"/> The attached application,			
OR			
<input checked="" type="checkbox"/> United States application or PCT international application number <u>16/901,887</u> filed on <u>6/15/2020</u>			
LEGAL NAME of inventor to whom this substitute statement applies:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
Bryan CHAN			
Residence (except for a deceased or legally incapacitated inventor):			
City	State	Country	
East Meadow	NY	US	
Mailing Address (except for a deceased or legally incapacitated inventor):			
167 Clearmeadow Drive			
City	State	Zip	Country
East Meadow	NY	11554	US
I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.			
The above-identified application was made or authorized to be made by me.			
I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.			
Relationship to the inventor to whom this substitute statement applies:			
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<input type="checkbox"/> Assignee,			
<input checked="" type="checkbox"/> Person to whom the inventor is under an obligation to assign,			
<input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or			
<input type="checkbox"/> Joint Inventor.			

[Page 1 of 2]

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Circumstances permitting execution of this substitute statement:

- ☐ Inventor is deceased,
- ☐ Inventor is under legal incapacity,
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PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

Name: Lawrence Miller	Date (Optional): 5/13/2021
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DocuSigned by:

Signature: *Lawrence Miller***APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

If the applicant is a juristic entity, list the applicant name and the title of the signer:

The Bank of New York Mellon

Applicant Name:

Title of Person Executing
This Substitute Statement: **Sr. Managing Counsel**

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

City New York	State NY	Country US
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Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)**240 Greenwich Street**

City New York	State NY	Zip 10286	Country US
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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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