05/22/2018 504925730

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4972476

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
VIJAY FRANCIS	04/20/2018
DENNIS J. CHEN	04/24/2018
ROGELIO VAZQUEZ-RIVERA	04/13/2018
JONATHAN DUNNE	04/16/2018
ANDREW T. PENROSE	05/22/2018
BRENDAN P. ARTHURS	05/03/2018

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15986160

CORRESPONDENCE DATA

504925730

Fax Number: (516)742-4366

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: 516-742-4343 Email: mgroth@ssmp.com

SCULLY, SCOTT, MURPHY & PRESSER, P.C. **Correspondent Name:**

400 GARDEN CITY PLAZA Address Line 1:

Address Line 2: SUITE 300

Address Line 4: GARDEN CITY, NEW YORK 11530

ATTORNEY DOCKET NUMBER:	P201702771US01 (35969)
NAME OF SUBMITTER:	EUNHEE PARK
SIGNATURE:	/Eunhee Park/
DATE SIGNED:	05/22/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

REEL: 045873 FRAME: 0242

PATENT

Total Attachments: 12 source=P201702771US01_Oath_Declaration_Signed#page1.tif source=P201702771US01_Oath_Declaration_Signed#page2.tif source=P201702771US01_Oath_Declaration_Signed#page3.tif source=P201702771US01_Oath_Declaration_Signed#page4.tif source=P201702771US01_Oath_Declaration_Signed#page5.tif source=P201702771US01_Oath_Declaration_Signed#page6.tif source=P201702771US01_Oath_Declaration_Signed#page7.tif source=P201702771US01_Oath_Declaration_Signed#page8.tif source=P201702771US01_Oath_Declaration_Signed#page9.tif source=P201702771US01_Oath_Declaration_Signed#page10.tif source=P201702771US01_Oath_Declaration_Signed#page11.tif source=P201702771US01_Oath_Declaration_Signed#page11.tif

Title of Invention: CHAT DELTA PREDICTION AND COGNITIVE OPPORTUNITY SYSTEM

As a below named and undersigned inventor, I hereby declare that:	
This declaration is directed to the attached application, or (if following box is checked):	
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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.	
Lam aware of the duty to disclose to the United States Patent and Trademark Office all information known to to be material to patentability as defined in 37 C.F.R. § 1.56.	me
Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to a the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;	
Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all pate applications and patents directed thereto;	

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being bereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interestin and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any andall such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

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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.

Signature: 1/2 /	Date: 4/20/19
(1) Legal Name of Inventor: Vijay Francis	
Signature:	Date:
(2) Legal Name of Inventor: Dennis J. Chen	
Classican	S'into.
Signature:	
(3) Legal Name of Inventor: Rogelio Vazquez-Rivera	
Signature:	Date:
(4) Legal Name of Inventor: Jonathan Dunne	
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Signature:	Date:
(5) Legal Name of Inventor: Andrew T. Penrose	
Signature:	Date:

(6) Legal Name of Inventor: Brendan P. Arthurs

Title of Invention: CHAT DELTA PREDICTION AND COGNITIVE OPPORTUNITY SYSTEM

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Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interestin and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

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Signature:	Date:
(i) Legal Naire of Inventor: Vijay Francis	
Signature: Sullu	Date: 04/24/ 2018
(2) Legal Name of Inventor: Dennis J. Chen	
Signature:	Dates
(3) Legal Name of Inventor: Rogelio Vazquez-Rivera	
Signature:	Date:
(4) Legal Name of Inventor: Jonathan Dunne	
Signature:	Date:
(5) Legal Name of Inventor: Andrew T. Penrose	
Signature:	Date:
(6) Legal Name of Inventor: Brendan P. Arthurs	

Title of Invention: CHAT DELTA PREDICTION AND COGNITIVE OPPORTUNITY SYSTEM

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Signature:	Date:
(1) Legal Name of Inventor Vijay Francis	
Sígnatore:	Date:
(2) Legal Name of Inventor: Dennis J. Chen	
Signature: (3) Legal Name of Inventor: Rogelio Vazquez-Rivera	Date: <u>04/13/2018</u>
Signature:	Date:
(4) Legal Name of Inventor: Jonathan Dunne	
Signature:	Date:
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S)gasture:	Date:
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Signature: 1914 Handeland	pme: <u>16-04-20</u> 18
(4) Legal Name of Inventor: Jonathan Dunne	
Signature	Date:
(5) Logal Name of Inventor: Andrew T. Penrose	
Signature:	Date:

2

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(1) Legal Name of Inventor: Vijay Francis	
Signume:	Date:
(2) Legal Name of Inventor; Dennis J. Chen	
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(3) Legal Name of Inventor: Rogelio Vazquez-Rivera	
Signature	Date:
(4) Legal Name of Inventor: Jonathan Dunne	
Signature: AQa Leva	
(5) Legal Name of Inventor: Andrew T. Penrose	
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(6) Land House of Inventor Brandon D. Arthur	

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Signature	Date:
(4) Legal Name of Inventor, Jonathan Dunne	
Signature:	Date
(5) Legal Name of Inventor Andrew T. Peurose	
011	
Signature <u>GUM</u>	1000 4 MAY 100 8

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(6) Legal Name of Investor Brendan P. Arthurs