503589309 11/30/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3635939

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YEA-JANE CHU	10/09/2015
SIER HAN	10/12/2015
NING SUN	10/12/2015
CHUN HUA TIAN	10/09/2015
FENG JUAN WANG	10/12/2015
MING XIE	10/12/2015
CHAO ZHANG	10/12/2015
XIU FANG ZHU	10/12/2015

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:	14954651	

CORRESPONDENCE DATA

Fax Number: (404)607-9981

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.

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Correspondent Name: CANTOR COLBURN LLP-IBM YORKTOWN

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ATTORNEY DOCKET NUMBER:	CN920150071US2
NAME OF SUBMITTER:	TANMAY DHARMADHIKARI
SIGNATURE:	/tanmaydharmadhikari,#L0938/

503589309 REEL: 037170 FRAME: 0466

PATENT

DATE SIGNED:	11/30/2015
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 12	
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PATENT REEL: 037170 FRAME: 0467

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: TRANSACTION DATA ANALYSIS

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):
[] United States application or PCT international application number
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.
Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as 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 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 interest in 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.

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this

Page 1 of 3

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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.

(1)	Legal Name of Inventor: Yea-Jane Chu	
	Signature: 11ea-Jane Ohn	Date: 10/09/2015
(2)	Legal Name of Inventor: Sier Han	
	Signature:	_Date:
(3)	Legal Name of Inventor: Ning Sun	
	Signature:	Date:
(4)	Legal Name of Inventor: Chun Hua Tian	
	Signature:	Date:

[IF MORE INVENTORS, ADDITIONAL SIGNATURE PAGE(S) FOLLOWS]

(5)	Legal Name of Inventor: Feng Juan Wang		
	Signature:	Date:	
(6)	Legal Name of Inventor: Ming Xie		
	Signature:	Date:	**************************************
(7)	Legal Name of Inventor: Chao Zhang		
	Signature:	Date:	
(8)	Legal Name of Inventor: Xiu Fang Zhu		
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Signature: NWY GUY	Date: 2017 - 10-12
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	Signature: Tian Chunhua	Date: Oct. 9, 2015

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	Signature: Feng Tuan Wang	Date: 2015-10-12
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	Signature: /\\i\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Date: 7315 . 1
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	Signature: Chad Zhang	Date: 2015 10, 12
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	Signature: Xin fung 2/m	Date: 201(, 10.12