504665681 11/30/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4712403

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOSEPH CASTINADO	11/30/2017
JOHN C. CHECCO	11/30/2017
PATRICK NICHOLAS LAWRENCE	11/22/2017

RECEIVING PARTY DATA

Name:	BANK OF AMERICA CORPORATION	
Street Address:	MAIL CODE NC 1-027-20-05	
Internal Address:	214 N. TRYON ST.	
City:	CHARLOTTE	
State/Country:	NORTH CAROLINA	
Postal Code:	28255	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15828052

CORRESPONDENCE DATA

Fax Number: (312)463-5001

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: 312-463-5000

Email: aonoda@bannerwitcoff.com **Correspondent Name:** BANNER & WITCOFF, LTD. Address Line 1: 10 S. WACKER DRIVE

SUITE 3000 Address Line 2:

Address Line 4: CHICAGO, ILLINOIS 60606

ATTORNEY BOOKET MUMBER	007101 01050	
ATTORNEY DOCKET NUMBER:	007131.01950	
NAME OF SUBMITTER: DARWIN T. RINDERER		
SIGNATURE:	/Darwin T. Rinderer/	
DATE SIGNED: 11/30/2017		
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 6

PATENT REEL: 044267 FRAME: 0555

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PATENT REEL: 044267 FRAME: 0556

PMN: 8134US1

COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	Blockchain-Based Unexpected Data Detection			
As the below	named inventor, I hereby declare that:			
This declaration is directed to:	A The attached application, or			
	United States application or PCT international application number			
The above-ide	entified application was made or authorized to be made by me.			
I believe that	am the original inventor or an original joint inventor of a claimed invention in the application.			
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or of not more than five (5) years, or both.			
	ASSIGNMENT			
WHEREAS, I, <u>Joseph Castinado</u> ("Assignor"), a citizen of <u>the United States of America</u> (Country), residing in <u>Northglenn, Colorado</u> (City, State/Province) have invented the above invention. If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and application number below after they become known and prior to filing the recordation.				
	U.S. Application No. $\underline{15/828,052}$, filed $\underline{11-30-2017}$.			
WHEREAS, BANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:				
payment for the said Assignor, representative countries for a countries in it entitled under Letters Patentin-parts and econfidential in request the Countries. I republication without furth nominees, an provisional, disproceedings,	ORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal es, the full and exclusive right, title and interest for the territory of the United States of America and all ign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign sown name and to claim any priority rights for such foreign applications to which such applications are international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and agranted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, tensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and present and compilations and any official whose duty it is to issue patents, to issue all Letters Patent on said presulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will execute all non-visional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.			

Firm No.: 007131.01950 PMN: 8134US1

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.

purposes are not retained in the approacher the area therefore are not publicly available.			
LEGAL NAME OF INVENTOR			
Inventor:Joseph Castinado	_ Date:	11/30/2017	
Signature:/ Joseph B Casterado			-

PMN: 8134US1

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This declarati	A THE attached application, or		
	United States application or PCT international application number filed on		
The above-ide	entified 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.		
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or tof not more than five (5) years, or both.		
	ASSIGNMENT		
WHEREAS, I, <u>John C. Checco</u> ("Assignor"), a citizen of <u>the United States of America</u> (Country), residing in <u>Stony Point, New York</u> (City, State/Province) have invented the above invention. If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and application number below after they become known and prior to filing the recordation.			
	U.S. Application No. $\underline{15/828,052}$, filed $\underline{11-30-2017}$.		
WHEREAS, BANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:			
payment for the said Assignor, representative countries for a countries in it entitled under Letters Paten in-parts and a confidential in request the Countriest. I republished further nominees, an provisional, differential proceedings,	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal es, the full and exclusive right, title and interest for the territory of the United States of America and all eign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign is own name and to claim any priority rights for such foreign applications to which such applications are rinternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and to granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and dommissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will er consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or y and all facts known to me regarding said inventions whenever requested, and that I will execute all non-ivisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs. and nominees, to obtain and enforce proper patent protection for said inventions in all countries.		

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purposes are not retained in the approacher me and the electric are not publicly available.			
LEGAL NAME OF INVENTOR			
Inventor: John C. Checco	Date:	11/30/2017	_
Signature:/ John C. Checco		/	

PMN: 8134US1

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This declaration is directed to:	A THE attached application, or		
	United States application or PCT international application number filed on		
The above-ide	entified 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.		
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or of not more than five (5) years, or both.		
	ASSIGNMENT		
residing in <u>P</u> above applica assignment, I,	Patrick Nicholas Lawrence ("Assignor"), a citizen of the United States of America (Country), ano, Texas (City, State/Province) have invented the above invention. If the following lines are blank, the tion was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and application vafter they become known and prior to filing the recordation.		
	U.S. Application No. $\underline{15/828,052}$, filed $\underline{11-30-2017}$.		
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of dhaving its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, est in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:		
payment for the said Assignor, representative countries for a countries in it entitled under Letters Patent in-parts and e confidential in request the Countries. I republished without furth nominees, and provisional, disproceedings, significant in the said proceedings, significant in the said and proceedings.	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal es, the full and exclusive right, title and interest for the territory of the United States of America and all right thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign is own name and to claim any priority rights for such foreign applications to which such applications are rinternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuation-extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and domainsioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will execute all non-visional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.		

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purposes are not retained in the application me and therefore are not publicly available.			
LEGAL NAME OF INVENTOR			
Inventor: Patrick Nicholas Lawrence	Date:	22 Nov 2017	
Signature:/ Patrick N. Lawre	ence		

PATENT REEL: 044267 FRAME: 0562

RECORDED: 11/30/2017