### 505821259 12/13/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5868089

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MAN HEI RAYMOND YIM	12/13/2019
JOHNNY CHANG	12/13/2019

#### **RECEIVING PARTY DATA**

Name:	FMR LLC	
Street Address:	245 SUMMER STREET	
City:	BOSTON	
State/Country:	MASSACHUSETTS	
Postal Code:	02210	

#### **PROPERTY NUMBERS Total: 2**

Property Type	Number
Application Number:	16686446
Application Number:	62927085

#### **CORRESPONDENCE DATA**

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Correspondent Name: HANCHUK KHEIT LLP

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ATTORNEY DOCKET NUMBER:	FIDELITY0684US	
NAME OF SUBMITTER:	WALTER G. HANCHUK	
SIGNATURE:	/Walter G. Hanchuk, Reg. no. 35179/	
DATE SIGNED:	12/13/2019	

#### **Total Attachments: 5**

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# Combined Assignment & Declaration

## WHEREAS.

as below named inventor(s), Man Hei Raymond Yim, and Johnny Chang ("ASSIGNOR"),

having made contributions towards advancements in: creative works, discoveries, knowhow, technological innovations, and invention(s)) ("Innovation(s)"), including those detailed in patents and/or application(s) for patent(s) as set forth below:

Section 1, Listed Patent(s) and/or Patent Application(s):
1. 🔀 provisional application(s)
a.  to be filed herewith; or
b. 🔀 bearing:
<ul> <li>i. US Provisional Application No. 62/927,085, filed on October 28, 2019, entitled "Al-Based Real-Time Prediction Engine Apparatuses, Methods and Systems", and Attorney Docket No. Fidelity0684PV;</li> </ul>
2. 🔀 non-provisional application(s)
a.  to be filed herewith; or
b.  bearing:
<ul> <li>i. US Non-Provisional Application No. 16/686,446, filed on November 18, 2019, entitled "Al-Based Real-Time Prediction Engine Apparatuses, Methods and Systems", and Attorney Docket No. Fidelity0684US;</li> </ul>
3. Patent Cooperation Treaty ("PCT") application(s)
a.  to be filed herewith; or
b.  bearing:
i. PCT Application No. , filed on , entitled " ", and Attorney Docket No. ;
4.
a. 🗆 bearing:
i. Patent No. , filed on , entitled " ", and Attorney Docket No. ;
he above listed Patent(s) and/or Patent Application(s) and the Innovation(s) thereto, nereinafter referred to as, the "Invention(s)".

WHEREAS,

Page 2 of 5 Combined Declaration & Assignment

FMR LLC, a corporation duly organized under and pursuant to the laws of Delaware, and having its principal place of business at 245 Summer Street, Boston, MA 02210, its successors, legal representatives and assigns (hereinafter referred to as "ASSIGNEE")

is desirous of acquiring: the entire right, title, and interest in and under said Invention(s); e.g., the application(s) for patent(s) identified above; the right to file application(s) for patent(s) of the United States or other countries on the Invention(s); any application(s) for patent(s) of the United States or other countries claiming priority to these application(s); any provisional application(s) for patent(s) of the United States or other countries from which these application(s) claim priority to; any provisional or other right to recover damages, including royalties, for prior infringements of these applications; and in, to and under an any patent(s)/Letters Patent of the United States or similar/other legal protections to be obtained and/or granted therefore or thereon in the United States and in any and all other countries.

## NOW, THEREFORE,

Docket No.: Fidelity0684US

for good, valuable, and sufficient consideration, the receipt of which is hereby acknowledged (and to the extent that the ASSIGNOR has not done so already via a prior agreement with the ASSIGNEE, or if the ASSIGNOR has already done so via a prior agreement with the ASSIGNEE then in confirmation of any obligation to do so in said prior agreement, (e.g., including any employment agreements by the ASSIGNOR assigning rights to the ASSIGNEE, the execution of an agreement between the ASSIGNOR and ASIGNEE titled "\_\_\_\_\_" and dated \_\_\_\_\_, etc.), the ASSIGNOR has assigned, set over, sold, and transferred, and) by these presents does assign, sell, set over, and transfer, unto the ASSIGNEE, its successors, legal representatives, and assigns, the ASSIGNOR's entire right, title, and interest in:

- (a) the Invention(s);
- (b) any application(s) for patent(s) and/or patents of the United States or other countries claiming the Invention(s), including:
  - (i) any application(s) for patent(s) and/or patents of the United States or other countries claiming priority to the Invention(s),
  - (ii) any application(s) for patent(s) and/or patents of the United States or other countries to which Invention(s) claim priority,
  - (iii) any continuation(s), continuation(s)-in-part, division(s), parent(s), provisional(s) to and/or from Invention(s) identified in the preceding paragraphs (b), (i) (ii);
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any provisional or other right to recover damages, including royalties, for prior infringements of the Invention(s) and/or any application(s) for patent(s) identified in the preceding paragraphs (a) (c);

- (e) any patent(s) of the United States or other countries that may be granted for or on any application(s) for patent(s) identified in the preceding paragraphs (b) (c), including any reissue(s) and extension(s) of said patent(s); and
- (f) all rights to claim priority in any country on the basis of any such applications, preceding applications, Invention(s) and/or preceding invention(s) identified in the preceding paragraphs (a)-(c), and (e).

The above-granted rights, titles, and interests are to be held and enjoyed by the ASSIGNEE, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the ASSIGNOR had this sale and assignment not been made.

The ASSIGNOR hereby represents to the ASSIGNEE, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the ASSIGNOR is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the ASSIGNOR has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The ASSIGNOR hereby covenants and agrees to and with the ASSIGNEE, its successors, legal representatives, and assigns, that the ASSIGNOR will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), i.e., said application(s), and said patent(s), including interference proceedings, without charge to the ASSIGNOR, its successors, legal representatives, and assigns, but at the cost and expense of the ASSIGNEE, its successors, legal representatives, and assigns.

The ASSIGNOR hereby authorizes and requests the attorneys of Hanchuk Kheit LLP to insert in the spaces provided above the filing date(s), the application number(s), and the attorney docket number(s) of the application(s) identified in Section 1 when known.

The ASSIGNOR hereby requests the Commissioner of Patents to issue said patent(s) of the United States to the ASSIGNEE for the sole use and behalf of the ASSIGNEE, its successors, legal representatives, and assigns.

## Docket No.: Fidelity0684US

Page 4 of 5

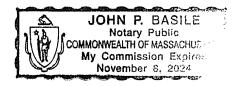
I hereby declare that the above-identified application(s) was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed Invention(s) in the application(s). I have reviewed and understand the contents of the above-identified application(s), including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 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.

Date: 12/13/2019 By		
Date.	Signature:	Man Hei Raymond Yim
	Country of Citi US	zenship:
	Mailing Addres 88 Pearl Street Cambridge, Ma	Unit 1
State of Massachusetts)		
County of Suffeld) ss.		·
On Necember 13, 2019, before me, _ personally appeared Man Hei Raymo basis of satisfactory evidence, to be the person	John f.  and Yim  (s) whose name(s)	Basile, Notary Public,, who proved to me on the is/are subscribed to the within
instrument and acknowledged to me that he/she, capacity(ies), and that by his/her/their signature(s behalf of which the person(s) acted, executed	) on the instrument the instrument.	at the person(s), or the entity upon REQUIRED SENTENCE IF
NOTARIZED IN CALIFORNIA: I certify undestate of California that the foregoing paragraph is		PERJURY under the laws of the
WHITNIESS - 1 - 1 - 1 - 15 - 1 - 1		
WITNESS my hand and official seal.		
Signature of Notary Public		And your
My Commission Expires: 11/18/24	Pla	ce Notary Seal Above



Date: 2019-12-13

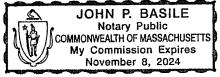
I hereby declare that the above-identified application(s) was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed Invention(s) in the application(s). I have reviewed and understand the contents of the above-identified application(s), including the claims.

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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.

	7,0
	Country of Citizenship:
	US
	Mailing Address:
	171 Swanton Street, Unit 7 Winchester, MA 01890
	winchester, MA 01890
State of Massachusetts  County of Suffelk  State of Massachusetts  State of Ma	
County of Suffeld	
On December 13, 2019, before me,	John P. Basile, Notary Public, who proved to me on the
personally appeared Johnny Cha	, who proved to me on the
basis of satisfactory evidence, to be the person(s	whose name(s) is/are subscribed to the within
instrument and acknowledged to me that he/she/t	on the instrument the person(s), or the entity upon
behalf of which the person(s) acted, executed	
NOTARIZED IN CALIFORNIA: I certify under	
State of California that the foregoing paragraph is	true and correct.
WITNESS My hand and official seal.	7 Shi Mark
(/ / P //	
a pull	
Signature of Notary Public	
My Commission Expires: 11 08 24	Place Notary Seal Above



**RECORDED: 12/13/2019** 

**PATENT** 

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