505778610 11/18/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LUYI MA	11/07/2019
HYUN DUK CHO	11/08/2019
SUSHANT KUMAR	11/13/2019
KANNAN ACHAN	11/13/2019

RECEIVING PARTY DATA

Name:	WALMART APOLLO, LLC
Street Address:	702 S.W. 8TH STREET
Internal Address:	(MS 0520)
City:	BENTONVILLE
State/Country:	ARKANSAS
Postal Code:	72716-0520

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16686577

CORRESPONDENCE DATA

Fax Number:

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: DUANE MORRIS LLP (WALMART)

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Address Line 4: PALO ALTO, CALIFORNIA 94304-1194

ATTORNEY DOCKET NUMBER: 6117US01 (R3014-11100)	
NAME OF SUBMITTER:	MANITA RAWAT
SIGNATURE:	/Manita Rawat/
DATE SIGNED:	11/18/2019

Total Attachments: 5

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PATENT 505778610 REEL: 051036 FRAME: 0516

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> PATENT REEL: 051036 FRAME: 0517

COMBINED ASSIGNMENT-DECLARATION

WHEREAS, <u>Luyi MA</u> of <u>Sunnyvale</u>, <u>CA</u>, <u>Hyun Duk CHO</u> of <u>San Francisco</u>, <u>CA</u>, <u>Sushant KUMAR</u> of <u>Sunnyvale</u>, <u>CA</u>, and <u>Kannan ACHAN</u> of <u>Saratoga</u>, <u>CA</u>, are the inventors of an invention entitled <u>METHODS AND APPARATUS</u> <u>FOR ELECTRONICALLY PROVIDING ITEM ADVERTISEMENT RECOMMENDATIONS</u>
that is the subject matter of: (check all that apply)

	a provisional application for Letters F	atent which is identifiab	le in the United Sta	ates Patent and T	rademark Office
	by Application No.	filed on			
\boxtimes	an application for Letters Patent w	hich is identifiable in th			
	Application No.	filed on		and/or execute	ed on even date
	herewith: and				
\boxtimes	an international application for Le	tters Patent filed purse	uant to the Pate	nt Cooperation 1	Freaty which is
	identifiable in the United States Received	siving Office by Application	on No.	file	d on
	; and/or ex	ecuted on even date her	ewith:		

WHEREAS, Walmart Apollo, LLC, a corporation of and existing under the laws of the State of Arkansas and the United States of America, and having a principal place of business at 702 S.W. 8th Street (MS 0520), Bentonville, Arkansas, 72716-0520 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged. I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I represent to the Assignee, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and Go such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.

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 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. I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filling date of the prior application and the national or PCT international filling date of the continuation-in-part application.

COMBINED ASSIGNMENT-DECLARATION

Inventor(s): Please Sign and Date Below:

Luyi Ma
Luyi MA (Inventor)
Date ///07/2019
Hyun Duk CHO (Inventor)
Date
Sushant KUMAR (Inventor)
Date
Kannan ACHAN (Inventor)

Date

COMBINED ASSIGNMENT-DECLARATION

Luyi MA (Inventor) Date Hyun Duk CHO (Inventor) Sushant KUMAR (Inventor) Kannan ACHAN (Inventor)

U.S. Assignment Declaration -- Wal-Mart Stores, Inc. - Confidential -- 2-0843/39633821.3

> **PATENT** REEL: 051036 FRAME: 0520

COMBINED ASSIGNMENT-DECLARATION

inventor(s). Flease Sign and Date Below.
Land BAA (Lander)
Luyi MA (Inventor)
Data
Date
Hyun Duk CHO (Inventor)
But
Date
Sushant Kuman
202NMIN VOILIDE
Sushant KUMAR (Inventor)
11/13/9
Date
Kannan ACHAN (Inventor)
,
Date

COMBINED ASSIGNMENT-DECLARATION

Inventor(s): Please Sign and Date Below:
Luyi MA (Inventor)
<u></u>
Date
4
Hyun Duk CHO (Inventor)
-
Date
Sushant KUMAR (Inventor)
Date
Date
N4=7
Kannan ACHAN (Inventor)
1104 13, 2019
Date

U.S. Assignment-Declaration -- Wal-Mart Stores, Inc. - Confidential -- 2- DM2\10655821.1

RECORDED: 11/18/2019