PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Manas Ashok Pathak	11/21/2011
Richard Chow	11/30/2011
Runting Shi	11/30/2011
Cong Wang	11/29/2011

RECEIVING PARTY DATA

Name:	Palo Alto Research Center Incorporated	
Street Address:	3333 Coyote Hill Road	
City:	Palo Alto	
State/Country:	CALIFORNIA	
Postal Code:	94304	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13314748

CORRESPONDENCE DATA

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via US Mail.

Correspondent Name: Shun Yao

Address Line 1: Park, Vaughan, Fleming & Dowler LLP

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Address Line 4: Davis, CALIFORNIA 95618

ATTORNEY DOCKET NUMBER: PARC-20110849-US-NP NAME OF SUBMITTER: Shun Yao, Reg. No. 59,242

PATENT

REEL: 027364 FRAME: 0372

Total Attachments: 4

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PATENT REEL: 027364 FRAME: 0373

ASSIGNMENT

Attorney Docket No.: PARC-20110849-US-NP

The undersigned is/are the named inventor(s) (the "Inventor(s)") on a United States patent application entitled

PRIVACY-PRESERVING COLLABORATIVE FILTERING

(the "Application") for inventions disclosed or claimed the	erein (the "Invention(s)"), which Application:
☐ is being executed concurrently herewith, ☐ was first executed on ☒ was filed on ❷ December as Applicated the December of U.S. Provisional Applicated the U.	ation Number 13 314,748 tion(s) No(s). filed .
Palo Alto Research Center Incorporated a Delaware Coits legal representatives (PARC) is entitled to all rights in of the Inventor(s).	rporation, on behalf of itself, its successors and it assigns, and n the Application and the Invention(s), and the full cooperation
transfer(s) to PARC the entire and exclusive right, title an United States, its territories, and all foreign countries.	by acknowledged, the Inventor(s) hereby sell(s), assign(s), and and interest in the Application and the Invention(s), in and for the including all applications, patents, design registrations and all priority rights under all present or future conventions and y is claimed in the Application; and
 (1) request the U.S. Commissioner of Patents to issue a (2) agree that PARC may apply for and receive all foreign (3) agree to execute all papers and take all actions in PARC; and 	all U.S. Letters Patent granted thereon to PARC; gn Letters Patent thereon; necessary or desirable in connection therewith requested by
	on Number on this Assignment, if not already entered above.
Manas Ashok Pathak	M.A. Pathak Date 11/21/2011
Richard Chow	
Runting Shi	Date
Cong Wang	Date
	Dete

ASSIGNMENT

Attorney Docket No.: PARC-20110849-US-NP

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Palo Alto Research Center Incorporated a Delaware Cor	rporation, on behalf of itself, its successors and it assigns, and the Application and the Invention(s), and the full cooperation
transfer(s) to PARC the entire and exclusive right, title an United States, its territories, and all foreign countries,	by acknowledged, the Inventor(s) hereby sell(s), assign(s), and ad interest in the Application and the Invention(s), in and for the including all applications, patents, design registrations and all priority rights under all present or future conventions and y is claimed in the Application; and
 request the U.S. Commissioner of Patents to issue a agree that PARC may apply for and receive all foreig agree to execute all papers and take all actions in 	all U.S. Letters Patent granted thereon to PARC; gn Letters Patent thereon; necessary or desirable in connection therewith requested by
PARC; and (4) authorize PARC to subsequently enter the Application	on Number on this Assignment, if not already entered above.
Manas Ashok Pathak	
	Date
Richard Chow	
	Date 11/30/2011
Runting Shi	
•	Date
Cong Wang	
	Date

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Attorney Docket No.: PARC-20110849-US-NP

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Palo Alto Research Center Incorporated a Delaware Corporation, of its legal representatives (PARC) is entitled to all rights in the Appliof the Inventor(s).	
For valuable consideration, the receipt of which is hereby acknowl transfer(s) to PARC the entire and exclusive right, title and interest United States, its territories, and all foreign countries, including publications obtained or derived therefrom, world wide, and all prior treaties, and any provisional applications for which priority is claime	in the Application and the Invention(s), in and for the all applications, patents, design registrations and ity rights under all present or future conventions and
 request the U.S. Commissioner of Patents to issue all U.S. Let agree that PARC may apply for and receive all foreign Letters agree to execute all papers and take all actions necessary PARC; and authorize PARC to subsequently enter the Application Number 	Patent thereon; or desirable in connection therewith requested by
Manas Ashok Pathak	
	Date
Richard Chow	
Runting Shi	Date
Cong Wang	Date $\frac{1}{30}$
	Date

PATENT REEL: 027364 FRAME: 0376

RECORDED: 12/12/2011

ASSIGNMENT

Attorney Docket No.: PARC-20110849-US-NP

The undersigned is/are the named inventor(s) (the "Inventor(s)") on a United States patent application entitled

PRIVACY-PRESERVING COLLABORATIVE FILTERING

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Palo Aito Research Center Incorporated a Delaware Co its legal representatives (PARC) is entitled to all rights i of the Inventor(s).	rporation, on behalf of itself, its successors and it assigns, and n the Application and the Invention(s), and the full cooperation
United States, its territories, and all foreign countries, publications obtained or derived therefrom, world wide, a treaties, and any provisional applications for which priorit	by acknowledged, the Inventor(s) hereby sell(s), assign(s), and and interest in the Application and the Invention(s), in and for the including all applications, patents, design registrations and all priority rights under all present or future conventions and by is claimed in the Application; and
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	on Number on this Assignment, if not already entered above.
Manas Ashok Pathak	
	Date
Richard Chow	
Runting Shi	Date
Cong Wang	Cong Wang
- -	Crong Wang Date 2011-11-29

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PATENT REEL: 027364 FRAME: 0377