505556507 07/03/2019

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| ZILIU LI | 06/27/2019 |
| JUNAID AHMED | 07/01/2019 |

RECEIVING PARTY DATA

| Name: | MICROSOFT TECHNOLOGY LICENSING, LLC | |
|-----------------|-------------------------------------|--|
| Street Address: | ONE MICROSOFT WAY | |
| City: | REDMOND | |
| State/Country: | WASHINGTON | |
| Postal Code: | 98052 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16502360 |

CORRESPONDENCE DATA

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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.

Email: usdocket@microsoft.com

Correspondent Name: MICROSOFT TECHNOLOGY LICENCING, LLC

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Address Line 4: REDMOND, WASHINGTON 98052

| ATTORNEY DOCKET NUMBER: | 14917.3810US01 | |
|-------------------------|-------------------|--|
| NAME OF SUBMITTER: | JULIANA HOFFMAN | |
| SIGNATURE: | /Juliana Hoffman/ | |
| DATE SIGNED: | 07/03/2019 | |

Total Attachments: 4

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PATENT 505556507 REEL: 049662 FRAME: 0083

I Ziliu LI ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CONTEXT-BASED MULTI-GRANULARITY INTENT DISCOVERY" ("APPLICATION"), which:

| | ASSIGNOR hereby authoria | |
|--------------------|----------------------------------|---------------------|
| | representative, Microsoft Te | ~ . |
| LLC, One Microso | ft Way, Redmond, Washingtor | i 98052 (ASSIGNEE'S |
| LEGAL REPRESEN | TATIVES), to insert here in | parentheses (filed |
| on | and given Application No |),by |
| the following (| Office |) this |
| APPLICATION'S Ap | oplication No., filing date, and | Office, when known; |
|] was filed on *** | and was given App | olication |
| | by the following Office | |
| No | by the following office | |

Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

| Application No. | Filing Date | Office | |
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Page 1 of 2

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

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|---------------------------------------|---------------------------------|
| zilin li | 06/27/2019 |
| Inventor's Signature | Date |
| Ziliu LI | 李子柳. |
| Printed Name in English | Printed Name in Native Language |
| | (if other than English) |

I <u>Junaid AHMED</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "CONTEXT-BASED MULTI-GRANULARITY INTENT DISCOVERY" ("APPLICATION"), which:

| | epresentative, Microsoft Techr Way,®Redmond, Washington 98 | |
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MS Docket No.:14917.3810US01/406818USNP

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| Junail Amed | 07/01/19 |
|-------------------------|---------------------------------|
| Inventor's Signature | Date |
| Junaid AHMED | |
| Printed Name in English | Printed Name in Native Language |
| *** | (if other than English) |