506669723 05/18/2021

PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| CHENGUANG ZHU | 01/15/2021 |
| NANSHAN ZENG | 01/15/2021 |

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: | 17323854 |

CORRESPONDENCE DATA

Fax Number: (801)328-1707

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: 801-533-9800

Email: Docketing@wnlaw.com

Correspondent Name: WORKMAN NYDEGGER/MICROSOFT

Address Line 1: 60 EAST SOUTH TEMPLE

Address Line 2: SUITE 1000

Address Line 4: SALT LAKE CITY, UTAH 84111

| ATTORNEY DOCKET NUMBER: | 13768.4038.1 |
|-------------------------|---------------------------------|
| NAME OF SUBMITTER: | JENS C. JENKINS, REG. NO. 44803 |
| SIGNATURE: | /JENS C. JENKINS/ |
| DATE SIGNED: | 05/18/2021 |

Total Attachments: 4

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PATENT 506669723 REEL: 056279 FRAME: 0443

I <u>Chenguang ZHU</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>GENERATION OF OPTIMIZED KNOWLEDGE-BASED LANGUAGE MODEL THROUGH KNOWLEDGE GRAPH MULTI-ALIGNMENT</u>" ("APPLICATION"), which:

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|-------------|-------------|-------------------|----------------------|----------------------|--------------|-------------------|-----------|------------------|
| \triangle | WIII | be | mea. | ASSIGNOR | nereby | authorizes | s, and | requests, |
| | ASSI | GNE | E'S legal | representat | ive, Micr | osoft Tech | nology | Licensing, |
| | LLC, | One | Microso | ft Way, Redr | nond, Wa | shington 9 | 8052 (A | ASSIGNEE'S |
| | LEGA | AL R | EPRESEN ⁻ | ΓΑΤΙVES), to | insert h | ere in pare | enthese: | s (filed on |
| | <u>Janu</u> | ary | 20, 202 | <u>L</u> and given | Applica | tion No. <u>1</u> | 7/1537 | <u>15</u> by the |
| | follo | wing |) Office <u>U</u> | <u>S – United St</u> | ates Pate | nt and Trac | demark (| Office) this |
| | APPl | _ICA ⁻ | ΓΙΟΝ's Αμ | plication No | o., filing c | late, and Of | ffice, wh | en known; |
| | | | | | | | | |
| | was | filed | on | | and was g | given Applio | cation | |
| | No _ | | | by the f | ollowing | Office | | |

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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 |
|-----------------|--------------|--------|
| 17/323854 | May 18, 2021 | USPTO |
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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).

| 8/9-2 | 01/15/2021 |
|-------------------------|---------------------------------|
| Inventor's Signature | Date |
| Chenguang ZHU | 朱晨光 |
| Printed Name in English | Printed Name in Native Language |
| | (if other than English) |

I <u>Nanshan ZENG</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>GENERATION OF OPTIMIZED KNOWLEDGE-BASED LANGUAGE MODEL THROUGH KNOWLEDGE GRAPH MULTI-ALIGNMENT</u>" ("APPLICATION"), which:

| X | will | be | filed. | ASSIGNOR | hereby | authorizes, | and | reque | sts, |
|---|--------------|-------|-----------------|--------------------|--------------|-----------------------|--------|--------------|------|
| | ASSIC | INEE | 'S legal | representat | ive, Micr | osoft Techno | ology | Licens | ing, |
| | LLC, (| One | Microso | ft Way, Redr | nond, Wa | ashington 980 |)52 (A | SSIGN | EE'S |
| | LEGA | L RE | EPRESEN | ΓΑΤΙVES), to | insert h | ere in paren | theses | (filed | on |
| | <u>Janua</u> | ıry 2 | 20, 202 | <u>l</u> and given | Applica | tion No. <u>17/</u> | 1537 | <u>15</u> by | the |
| | follov | ving | Office <u>U</u> | S – United St | ates Pate | <u>nt and Trade</u> ı | mark (| Office) | this |
| | APPLI | CAT | TON's Ap | plication No | o., filing c | late, and Offic | e, wh | en kno | wn; |
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| | was f | iled | on | | and was g | given Applica | tion | | |
| | No _ | | | by the fo | ollowing | Office | | | |
| | u | | | | ". | | | | |

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| Khishon Zenx | Jen 15, 202 |
|-------------------------|---------------------------------|
| Inventor's Signature | Date |
| Nanshan ZENG | |
| Printed Name in English | Printed Name in Native Language |
| | (if other than English) |