#### 506969010 11/09/2021

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7015848

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHIXING CHEN	11/25/2020
MUHAMMAD RAFFAY HAMID	11/25/2020
VIMAL BHAT	11/25/2020
SHIVA KRISHNAMURTHY	11/27/2020

#### **RECEIVING PARTY DATA**

Name:	AMAZON TECHNOLOGIES, INC.	
Street Address:	PO BOX 81226	
City:	SEATTLE	
State/Country:	WASHINGTON	
Postal Code:	98108-1226	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17107514

### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	1030P71810US
NAME OF SUBMITTER:	SCOTT A. SIMMONS
SIGNATURE:	/Scott A. Simmons/
DATE SIGNED:	11/09/2021

#### **Total Attachments: 8**

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U.S. Patent Appln. No. <u>17/107,514</u> Filing Date <u>11/30/2020</u> Attorney Docket No. 1030P71810US Client Docket No. P71810-US01

#### **PARTIES TO THE ASSIGNMENT**

#### Assignor(s):

Shixing Chen 410 Terry Avenue North Seattle, WA 98109-5210

Muhammad Raffay Hamid 410 Terry Avenue North Seattle, WA 98109-5210

Vimal Bhat 410 Terry Avenue North Seattle, WA 98109-5210

Shiva Krishnamurthy 410 Terry Avenue North Seattle, WA 98109-5210

#### Assignee:

Amazon Technologies, Inc. PO Box 81226 Seattle, WA 98108-1226

# <u>AGREEMENT</u>

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled

"ENSEMBLE OF MACHINE LEARNING MODELS FOR AUTOMATIC SCENE CHANGE DETECTION"

(Invention) for which a non-provisional application for United States Letters Patent

(Application):

| was filed on \_\_\_\_\_\_ and accorded U.S. Application No. \_\_\_\_\_; or

| will be filed concurrently with the submission of this executed PATENT ASSIGNMENT

for recordation. ASSIGNOR(S) hereby authorizes and requests ASSIGNEE'S legal

PATENT REEL: 058066 FRAME: 0387

representatives, of Nicholson Devos Webster & Elliott LLP, associated with

U.S. Patent Appln. No. 17/107,514

Filing Date 11/30/2020

Attorney Docket No. 1030P71810US

Client Docket No. P71810-US01

Title of Invention: ENSEMBLE OF MACHINE LEARNING MODELS FOR AUTOMATIC SCENE

CHANGE DETECTION

Inventors: Shixing Chen, Muhammad Raffay Hamid, Vimal Bhat, Shiva Krishnamurthy

Customer No. 148241, to insert in the header above and here in parentheses (U.S.

Patent Application No. 17/107,514, filed 11/30/2020) this application's U.S.

application number and filing date, when known.

WHEREAS, ASSIGNEE, a corporation of the State of Nevada, is desirous of acquiring the

entire right, title and interest in and to the Invention and in and to any letters patent that may

be granted therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of

which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE its

successors and assigns, the entire right, title and interest in and to said Invention and any

improvements thereto, said Application and any and all letters patent which may be granted for

said Invention in the United States of America and its territorial possessions and in any and all

foreign countries, and in any and all provisional, divisions, reissues, re-examinations and

continuations thereof, including the right to file foreign applications directly in the name of

ASSIGNEE and to claim priority rights deriving from said Application to which said foreign

applications are entitled by virtue of international convention, treaty or otherwise, said

Invention, Application and all letters patent on said Invention to be held and enjoyed by

ASSIGNEE and its successors and assigns for their use and benefit and of their successors and

assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had

this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request

the Commissioner of Patents and Trademarks, as well as all other applicable patent offices

throughout the world, to issue all letters patent on said Invention to ASSIGNEE. ASSIGNOR(S)

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U.S. Patent Appln. No. 17/107,514 Filing Date 11/30/2020

Attorney Docket No. 1030P71810US

Client Docket No. P71810-US01

Title of Invention: ENSEMBLE OF MACHINE LEARNING MODELS FOR AUTOMATIC SCENE

CHANGE DETECTION

Inventors: Shixing Chen, Muhammad Raffay Hamid, Vimal Bhat, Shiva Krishnamurthy

agree to execute all instruments and documents required for the making and prosecution of

applications for United States and foreign letters patent on said Invention, for litigation

regarding said letters patent, or for the purpose of protecting title to said Invention or letters

patent therefor.

AND ASSIGNOR(S) DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its

successors, legal representatives, and assigns all claims for damages and all remedies arising out

of any violation of the rights assigned hereby that may have accrued prior to the date of

assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue

for, collect, and retain damages for past infringements of said letters patent before or after

issuance.

AND ASSIGNOR(S) DOES HEREBY covenant and agree that ASSIGNOR(S) will

communicate to ASSIGNEE, its successors, legal representatives and assigns, any facts known to

ASSIGNOR respecting the Invention or said Application, and testify in any legal proceeding, assist

in the preparation of any other patent property relating to the Application and the Invention or

any improvements made thereto, sign/execute all lawful papers, provide all requested

documents, execute and make all rightful oaths and/or declarations in connection with the

Application and the Invention including any improvements made thereto, any patent

applications filed therefrom, and any continuing application filed from any of the

aforementioned applications, and generally do everything possible to aid ASSIGNEE, its

successors, legal representatives and assigns, to obtain and enforce proper patent protection for

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PATENT

REEL: 058066 FRAME: 0389

U.S. Patent Appln. No. <u>17/107,514</u> Filing Date <u>11/30/2020</u>

Attorney Docket No. 1030P71810US Client Docket No. P71810-US01

Title of Invention: ENSEMBLE OF MACHINE LEARNING MODELS FOR AUTOMATIC SCENE CHANGE DETECTION

Inventors: Shixing Chen, Muhammad Raffay Hamid, Vimal Bhat, Shiva Krishnamurthy

the Invention in all countries. These provisions are binding upon ASSIGNOR's heirs, legal representatives, administrators, and assigns.

U.S. Patent Appln. No. 17/107,514 Attorney Docket No. 1030P71810US Filing Date 11/30/2020 Client Docket No. P71810-US01 Title of Invention: ENSEMBLE OF MACHINE LEARNING MODELS FOR AUTOMATIC SCENE CHANGE DETECTION Inventors: Shixing Chen, Muhammad Raffay Hamid, Vimal Bhat, Shiva Krishnamurthy **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number \_\_\_\_\_\_ filed on \_\_\_\_\_; or PCT International Application number \_\_\_\_\_\_ filed on \_\_\_\_\_. 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 have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. - DocuSigned by: /Shiping Chen/ -7F344F549B9949C.. Shixing Chen November 25, 2020 Date

U.S. Patent Appln. No. 17/107,514 Attorney Docket No. 1030P71810US Filing Date 11/30/2020 Client Docket No. P71810-US01 Title of Invention: ENSEMBLE OF MACHINE LEARNING MODELS FOR AUTOMATIC SCENE CHANGE DETECTION Inventors: Shixing Chen, Muhammad Raffay Hamid, Vimal Bhat, Shiva Krishnamurthy **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number filed on ; or PCT International Application number \_\_\_\_\_\_ filed on \_\_\_\_\_\_. 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 have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. /Muliammad Raffay Hamid/ 9EA64D64FD334FC... Muhammad Raffay Hamid November 25, 2020 Date

U.S. Patent Appln. No. 17/107,514 Attorney Docket No. 1030P71810US Filing Date 11/30/2020 Client Docket No. P71810-US01 Title of Invention: ENSEMBLE OF MACHINE LEARNING MODELS FOR AUTOMATIC SCENE CHANGE DETECTION Inventors: Shixing Chen, Muhammad Raffay Hamid, Vimal Bhat, Shiva Krishnamurthy **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number filed on ; or PCT International Application number \_\_\_\_\_\_ filed on \_\_\_\_\_\_. 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 have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. - DocuSigned by: /Vimal Bliat/ ~7F764E53479B46B. Vimal Bhat November 25, 2020 Date

**RECORDED: 11/09/2021** 

# **PATENT ASSIGNMENT AND DECLARATION (37 CFR 1.63)**

U.S. Patent Appln. No. <u>17/107,514</u> Filing Date <u>11/30/2020</u>	Attorney Docket No. 1030P71810US Client Docket No. P71810-US01		
Title of Invention: ENSEMBLE OF MACHINE CHANGE DETECTION	ELEARNING MOD	ELS FOR AUTOMATION	C SCENE
Inventors: Shixing Chen, Muhammad Raffa	y Hamid, Vimal E	Bhat, Shiva Krishnamı	urthy
<b><u>DECLARATION</u></b> As a below named inventor, I hereby declared	e that:		
This declaration is directed to:			
igstyle igstyle igstyle the attached application; or			
United States Patent Application	າ number	filed on	; or
PCT International Application nu	ımber	_ filed on	_•
The above-identified application was made	or authorized to b	e made by me.	
I believe that I am the original inventor or ar	n original joint inv	entor of a claimed Inv	ention in the
application.			
I have reviewed and understand the content the duty to disclose to the US Patent & Trad material to the patentability as defined in 37	emark Office all in		_
I hereby acknowledge that any willful false s	tatement made i	n this declaration is p	unishable under
18 USC 1001 by fine or imprisonment of not	more than five (5	5) years, or both.	
Shiva Krishnamurthy  November 27, 2020			
Date			

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