

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6761903

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KIRANKUMAR RAKA	06/09/2021
SEAN CALLOT	06/09/2021
ALEX THOMAS	06/10/2021
VAMSI NALLAGATLA	06/09/2021
VEENA RADHAKRISHNA	06/09/2021
FARIS JADADIC	06/10/2021
CHRISTOPHER ADDISON	06/09/2021
RAJARAJAN VENKATESAN	06/11/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	FMR LLC
<b>Street Address:</b>	245 SUMMER STREET
<b>City:</b>	BOSTON
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02210
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	17339482
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)526-9899
<i>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.</i>	
<b>Phone:</b>	617-526-9427
<b>Email:</b>	tamoore@proskauer.com
<b>Correspondent Name:</b>	PROSKAUER ROSE LLP
<b>Address Line 1:</b>	ONE INTERNATIONAL PLACE
<b>Address Line 4:</b>	BOSTON, MASSACHUSETTS 02110
<b>ATTORNEY DOCKET NUMBER:</b>	FID-427
<b>NAME OF SUBMITTER:</b>	ALAN S. TERAN
<b>SIGNATURE:</b>	/Alan S Teran/

<b>DATE SIGNED:</b>	06/15/2021
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 16</b> source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page1.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page2.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page3.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page4.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page5.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page6.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page7.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page8.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page9.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page10.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page11.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page12.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page13.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page14.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page15.tif source=FID_427_Executed_Combined_Declaration_and_Assignment_Forms#page16.tif	

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Kirankumar Raka, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand-and affixed my seal on the date set forth below.

Inventor:

Kirankumar Raka 06/09/2021

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this \_\_\_\_ day of \_\_\_\_\_, 202\_\_\_\_ before me, the undersigned notary public, personally appeared Kirankumar Raka, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

Notary Public

My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature:

Witness Name:

Witness Date:

Pranjal

Pranjal Kiran Raka

06/09/2021

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Sean Callot, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

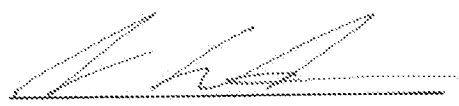
I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand-and affixed my seal on the date set forth below.

Inventor:

  
Sean Callot

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this \_\_\_\_ day of \_\_\_\_\_, 202\_\_\_\_ before me, the undersigned notary public, personally appeared Sean Callot, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

\_\_\_\_\_  
Notary Public

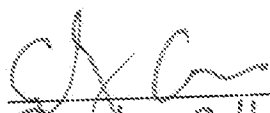
My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature: \_\_\_\_\_

Witness Name: \_\_\_\_\_

Witness Date: \_\_\_\_\_

  
Emily Callot  
June 9, 2021

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Alex Thomas, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.


I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand-and affixed my seal on the date set forth below.

Inventor:

  
\_\_\_\_\_  
Alex Thomas

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this \_\_\_\_ day of \_\_\_\_\_, 202\_\_ before me, the undersigned notary public, personally appeared Alex Thomas, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

\_\_\_\_\_  
Notary Public


My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature:

Witness Name:

Witness Date:

  
\_\_\_\_\_  
Ashwini Sakhivel  
\_\_\_\_\_  
10 June 2021  
\_\_\_\_\_



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Vamsi Nallagatla, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand-and affixed my seal on the date set forth below.

Inventor: N. Vamsi Mohan Laddu  
Vamsi Nallagatla

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this \_\_\_\_ day of \_\_\_\_\_, 202\_\_ before me, the undersigned notary public, personally appeared Vamsi Nallagatla, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature: Ragini Challa  
Witness Name: RAGINI CHALLA  
Witness Date: 06/09/2021

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Veena Radhakrishna, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand and affixed my seal on the date set forth below.

Inventor: R. Veena  
Veena Radhakrishna

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this 9 day of June, 2021, before me, the undersigned notary public, personally appeared Veena Radhakrishna, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

Notary Public  
My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature: [Signature]  
Witness Name: K. Magesh  
Witness Date: June 9<sup>th</sup>, 2021

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Faris Jadadic, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.



I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand-and affixed my seal on the date set forth below.

Inventor:    
Faris Jadadic

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this 12 day of June, 2021 before me, the undersigned notary public, personally appeared Faris Jadadic, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.


\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature: \_\_\_\_\_

Witness Name: \_\_\_\_\_

Witness Date: \_\_\_\_\_

  
FARIS JADADIC  
6/10/2021

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Christopher Addison, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

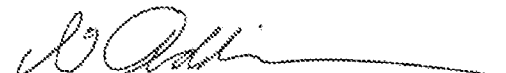
I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand-and affixed my seal on the date set forth below.

Inventor:

  
Christopher Addison

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this 9<sup>th</sup> day of June, 2021 before me, the undersigned notary public, personally appeared Christopher Addison, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

Notary Public

My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature:

Addison

Witness Name:

Arlene Addison

Witness Date:

June 9<sup>th</sup> 2021



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S):	Raka <i>et al.</i>	CONFIRMATION NO.:	4976
APPLICATION NO.:	17/339,482	FILING DATE:	June 4, 2021
TITLE:	SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION FRAMEWORK		

---

**DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT**

**I. DECLARATION**

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

**II. ASSIGNMENT**

WHEREAS, I, Rajarajan Venkatesan, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

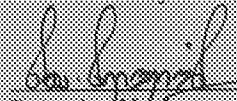
I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

### III. SIGNATURE BLOCK

*IN TESTIMONY WHEREOF*, I have hereunto set my hand and affixed my seal on the date set forth below.

Inventor:

  
Rajarajan Venkatesan

### NOTARIZATION

State/Commonwealth of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss

On this 11<sup>th</sup> day of June, 2021, before me, the undersigned notary public, personally appeared Rajarajan Venkatesan, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document in my presence.

Notary Public

My Commission Expires: \_\_\_\_\_

### WITNESS

Witness Signature: \_\_\_\_\_

Witness Name: \_\_\_\_\_

Witness Date: \_\_\_\_\_



Amirtha R

June 11<sup>th</sup> 2021