

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT8108074

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the SURNAME OF THE SECOND LISTED INVENTOR, ZHIHAO GAO, ON THE ASSIGNMENT DOCUMENT previously recorded on Reel 058414 Frame 0654. Assignor(s) hereby confirms the CORRECT SPELLING OF ZHIHAO GAO IS ON THE ATTACHED ASSIGNMENT DOCUMENT THAT IS TO REPLACE ZHIHAO GAO'S PREVIOUS ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
ZHIHAO GAO	02/20/2020

RECEIVING PARTY DATA

Name:	CAPITAL ONE SERVICES, LLC
Street Address:	1680 CAPITAL ONE DRIVE
City:	MCLEAN
State/Country:	VIRGINIA
Postal Code:	22102

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16523270

CORRESPONDENCE DATA

Fax Number: (312)463-5001

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: 3124635000

Email: bwptopat@bannerwitcoff.com, kbonsignore@bannerwitcoff.com

Correspondent Name: BANNER & WITCOFF LTD.

Address Line 1: 71 SOUTH WACKER DRIVE

Address Line 4: CHICAGO, ILLINOIS 60606

ATTORNEY DOCKET NUMBER:	009033.00467
NAME OF SUBMITTER:	KIM BONSIGNORE
SIGNATURE:	/Kim Bonsignore/
DATE SIGNED:	08/10/2023

Total Attachments: 6

source=009033.00467 - MARKED Coversheet with Assignment#page1.tif

source=009033.00467 - MARKED Coversheet with Assignment#page2.tif

source=009033.00467 - MARKED Coversheet with Assignment#page3.tif

source=009033.00467 - MARKED Recordation#page1.tif

source=009033.00467 - MARKED Recordation#page2.tif

source=009033.00467 - GAO Assignment#page1.tif

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7079742

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
DANIEL GUNN	07/17/2019
ZHIHAO GAO	<u>02/20/2020</u> 07/17/2019
PULKIT GULATI	07/26/2019
WILLIAM CARTAR	07/22/2019
RECEIVING PARTY DATA	
Name:	CAPITAL ONE SERVICES, LLC
Street Address:	1680 CAPITAL ONE DRIVE
City:	MCLEAN
State/Country:	VIRGINIA
Postal Code:	22102
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17553983
CORRESPONDENCE DATA	
Fax Number:	(202)824-3001
<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>	
Phone:	(202) 824-3000
Email:	bwptopat@bannerwitcoff.com, mseasay@bannerwitcoff.com
Correspondent Name:	BANNER & WITCOFF, LTD.
Address Line 1:	1100 13TH ST. NW
Address Line 2:	STE 1200
Address Line 4:	WASHINGTON, D.C. 20005
ATTORNEY DOCKET NUMBER:	009033.00467
NAME OF SUBMITTER:	CHRISTOPHER R. GLEMBOCKI
SIGNATURE:	/Christopher R. Glembocki/
DATE SIGNED:	12/17/2021
Total Attachments: 4	
source=ALL Inventors - Combined Patent Declaration and Assignment#page1.tif	
source=ALL Inventors - Combined Patent Declaration and Assignment#page2.tif	

source=ALL Inventors - Combined Patent Declaration and Assignment#page3.tif

source=ALL Inventors - Combined Patent Declaration and Assignment#page4.tif

COMBINED PATENT DECLARATION AND ASSIGNMENT

TITLE OF INVENTION:	CONTROL SYSTEMS WITH INDEPENDENT DATA PROCESSING
DECLARATION	
As the below named inventor, I hereby declare that:	
<ul style="list-style-type: none"> • This declaration is directed to: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The attached application, or <input type="checkbox"/> United States application 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 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. 	
ASSIGNMENT	
WHEREAS, I, the below named inventor/Assignor, have invented the above invention, having the following application number and filing date:	
U.S. Application No. <u>16/523,270</u> , filed <u>July 26, 2019</u> .	
If the above lines are blank, I hereby authorize the attorneys for Assignee to insert the filing date and application number immediately above after they become known and prior to recording this document.	
WHEREAS, Capital One Services, LLC ("Assignee"), a Corporation having offices and a place of business at 1680 Capital One Drive, McLean, Virginia 22102, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:	
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary and/or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions.	
I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment.	
I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.	
INVENTOR/ASSIGNOR:	
Legal Name: <u>Zhihao Gao GAO</u>	
Address: <u>c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102</u>	
Signature: _____	DocuSigned by: <u>Zhihao Gao</u> Date: <u>7/17/2019</u>

1E91B821C15549B

COMBINED PATENT DECLARATION AND ASSIGNMENT

TITLE OF INVENTION:	CONTROL SYSTEMS WITH INDEPENDENT DATA PROCESSING
DECLARATION	
As the below named inventor, I hereby declare that:	
<ul style="list-style-type: none"> • This declaration is directed to: <ul style="list-style-type: none"> <input type="checkbox"/> The attached application, or <input checked="" type="checkbox"/> United States application or PCT international application number <u>16/523,270</u> filed on <u>July 26, 2019</u>. • 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 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. 	
ASSIGNMENT	
WHEREAS, I, the below named inventor/Assignor, have invented the above invention, having the following application number and filing date:	
U.S. Application No. 16/523,270, filed July 26, 2019.	
If the above lines are blank, I hereby authorize the attorneys for Assignee to insert the filing date and application number immediately above after they become known and prior to recording this document.	
WHEREAS, Capital One Services, LLC ("Assignee"), a Corporation having offices and a place of business at 1680 Capital One Drive, McLean, Virginia 22102, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:	
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary and/or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions.	
I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment.	
I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.	
INVENTOR/ASSIGNOR:	
Legal Name: <u>Zhihao Gao</u>	
Address: <u>c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102</u>	
Signature: <u>Zhihao Gao</u>	Date: <u>Feb 23, 2020</u>

PATENT