# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6769278

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
DAVID MURPHY	02/25/2019
THOMAS DA SILVA PAULA	02/25/2019
WAGSTON TASSONI STAEHLER	02/25/2019
JOAO EDUARDO CARRION	02/26/2019
ALEXANDRE SANTOS DA SILVA	02/25/2019
JULIANO CARDOSO VACARO	02/25/2019
GABRIEL RODRIGO DE LIMA PAZ	02/25/2019

### **RECEIVING PARTY DATA**

Name:	Hewlett-Packard Development Company, L.P.	
Street Address:	10300 Energy Drive	
City:	Spring	
State/Country:	TEXAS	
Postal Code:	77389	

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

Property Type	Number	
Application Number:	17415780	

### **CORRESPONDENCE DATA**

Fax Number: (970)778-4063

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: (541)360-4450 Email: ipa.mail@hp.com

**Correspondent Name:** HP INC.

3390 E. HARMONY ROAD MS 35 Address Line 1: Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	86021991
NAME OF SUBMITTER:	TRACY J. KIMMEL
SIGNATURE:	/Tracy J. Kimmel/
DATE SIGNED:	06/18/2021

**PATENT** REEL: 056582 FRAME: 0119

# Total Attachments: 7 source=86021991 Executed Assignment#page1.tif source=86021991 Executed Assignment#page2.tif source=86021991 Executed Assignment#page3.tif source=86021991 Executed Assignment#page4.tif source=86021991 Executed Assignment#page5.tif source=86021991 Executed Assignment#page6.tif source=86021991 Executed Assignment#page7.tif

PATENT REEL: 056582 FRAME: 0120

HP Inc.
3390 E. Harmony Road
Mail Stop 35
Fort Collins, Colorado 80528

## **ASSIGNMENT OF PATENT APPLICATION**

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right				
title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):				
PREPROCESSING SENSOR DATA FOR MA	CHINE LEARNING			
Filing Date: 14 Mar 2019	Application No.:	PCT/U	S2019/022222	_Patent Office: US ;
the subject matter, including any and all inventions herein "patent" refers to any form of intellectual prodesign rights, and utility model rights) (hereinafte country or region or under any international agree patent, any and all applications for patent directly said Inventions, any and all applications for pater indirectly claims priority or benefit, and any and all of, divisional applications of, national-phase appli application for patent for any of said Inventions) (I on or as a result of said Applications for Patent (hor said Applications for Patents).	operty protection incluer "Inventions"); any ment for any of said or indirectly claiming ent from which any a continuation applications of, regional-phereinafter "Application	Iding, withon and all eximples inventions of priority to complication of the priority in the p	ut limitation, invention isting and future applications, without limitor benefit of any application patent for any of softinuation-in-part applications of renewals oent"); any and all pater	rights, utility patent rights, cations for patent of any lation, said application for ation for patent for any of aid Inventions directly or cations (hereinafter CIPs) f, and substitutes for any lats which may be granted
I HEREBY represent that I convey my full rigentire right, title, and interest herein assigned and conflict herewith;	ghts in all countries transferred, and that	and regions I have not o	and under all internations and under all internations and will not executed and will not	ational agreements to the execute any agreement in
AND I HEREBY authorize HPDC, its succ Applications for Patent in its name or in my nam authorize HPDC, its successors, its assigns, its number, and patent office of said application for p them;	ne in any country or nominees, and its	region or ι legal repre:	inder any internationa sentatives to insert th	I agreement, and further e filing date, application
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AND I HEREBY covenant and agree that I will such papers as may be necessary or desirable to HPDC, its successors, or its assigns; communicate all known facts respecting said Inventions, Applicational and sign all lawful papers (including, without fir applications) relating to said Inventions, Applicating generally to do everything possible to aid HPDC, i maintain, and enforce, for its or their own benefit, pand Patents, provided the expenses which may be its successors, its assigns, its nominees, or its legal	to perfect the title in to HPDC, its successitions for Patent, and mitation, divisional a ons for Patent, and I ts successors, its assuroper intellectual projectional	said Inventions sors, its as Patents; te pplications, Patents; and signs, its no perty protects.	tions, Applications for signs, its nominees, or estify in any legal or ac continuation applicat d make all rightful oat eminees, and its legal it etion for said Inventions	Patent, and Patents, to its legal representatives, dministrative proceedings ions, CIPs, and reissue ths and declarations and representatives to obtain, s, Applications for Patent,
" IN WITNESS WHEREOF, I hereunto set my h	nand and seal:			
		25	PERMITRY	2019
Inventor's Signature David Murphy		Day	Month	Year
Given (First and Middle) Name(s) Family Name				

Rev 8/2018 (HPDC Assignment)

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RECORD ID:	35053990
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### ASSIGNMENT OF PATENT APPLICATION

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEVLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston. Texas, (hereinaffer "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

title, and interes		Houston, Texas, (nereinall priority, in, to, and under is in another language):			
PREPROCES	SING SENSOR DATA I	FOR MACHINE LEARNIN	IG		
Filing Date:	14 Mar 2019	Application No.:	PCT/U	JS2019/022222	Patent Office: US
herein "pateni" ra design rights, ar country or region patent, any and said Inventions, indirectly claims of, divisional any application for po on or as a result	efers to any form of intelle nd utility model rights) (I or under any internation all applications for patent any and all applications priority or benefit, and an dications of, national-pha etent for any of said inve	eventions, improvements, a sectual property protection in nereinafter "Inventions"), at all agreement for any of sa (directly or indirectly claim! for patent from which any y and all continuation appliese applications of, regionantions) (hereinafter "Palentients."	cluding, with ny and all e id invention ng priority to y application cations of, c ai-phase app ations for Pa	cout limitation, invention existing and future app is (including, without limit or benefit of any applit for patent for any of continuation-in-part app dications of, renewals thent"); any and all pate	i rights, utility patent rights lications for patent of an litation, said application fo cation for patent for any c said Inventions directly o lications (hereinafter CIPs of, and substitutes for an ents which may be granter
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Applications for authorize HPDC	Patent in its name or in , its successors, its ass	its successors, its assign my name in any country ligns, its nominees, and it tion for patent, now identifi	or region or is legal repr	under any internation resentatives to insert t	al agreement, and furthe the filing date, application
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IN WITNES	S WHEREOF, I hereunto	set my hand and seat			
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Inventor's Signat			uay	Month	1897
Thomas da Silv Given (First and N	a Paula Niddle) Name(s) — Fami	ly Name			
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Rev 8/2016 (HPDC Assignment)

RECORD	iD:	85053990
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### ASSIGNMENT OF PATENT APPLICATION

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEVLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership

having its princ title, and interes	ipal place of business in H ist, including all rights of p said application for patent is	louston, Texas, (hereinafte priority, in, to, and under a	- "HPDC"), i in applicatio	ts successors, and it on for patent entitled	s assigns, my entire right, (English-language title in
PREPROCES	SING SENSOR DATA FO	OR MACHINE LEARNING			
Filing Date:	14 Mar 2019	Application No.:	PCT/US	82019/022222	Patent Office: <u>US</u>
herein "patent" design rights, a country or regio patent, any and said Inventions indirectly claims of, divisional application for a on or as a resu	ter, including any and all im- refers to any form of inteller, and utility model rights) (he or under any internations all applications for patent of any and all applications to priority or benefit, and any applications of, national-phase catent for any of said Inven- it of said Applications for P- ions for Patent or said Pate-	stual property protection inco areinafter "Inventions"); any all agreement for any of salo directly or indirectly claiming for patent from which any is and all continuation applicates as applications of, regional tions) (hereinafter "Applicates"	uding, without and all extended and all extended application attens of, couplings for Pations for Pations for Pations and all extended applications for Pations for Pations and all extended applications for Pations for Pations and all extended applications for Pations fo	ut limitation, invention isting and future applicating, without line or benefit of any applifor patent for any of intinuation-in-part applications of, renewals ant "); any and all pat	n rights, utility patent rights slications for patent of any nitation, said application for ication for patent for any o said inventions directly or slications (hereinafter CIPs) of, and substitutes for any ents which may be granted
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such papers as HPDC, its succe all known facts and sign all le applications) re generally to do maintain, and e and Patents, pr	REBY covenant and agree to a may be necessary or de- expecting said inventions, wiful papers (including, will said inventions, a everything possible to aid inforce, for its or their own boulded the expenses which its assigns, its nominees, or	sirable to perfect the title nunicate to HPDC, its succi, Applications for Patent, ar thout limitation, divisional applications for Patent, and HPDC, its successors, its aments, proper intellectual or may be incurred by me in	n said inversessors, its and Patents; it applications Patents; assigns, its noperly prote	ntions, Applications saigns, its nominees, lestify in any legal or c, continuation applife, demander all rightfut cominees, and its legication for said inventic	for Patent, and Patents, to or its legal representatives administrative proceedings rations, CIPs, and reissue paths and declarations and al representatives to obtain ans, Applications for Patent
IN WITHE	ss whereof, i hereunto I TOU TA	set my hand and seat. EUUZ	25	FES	2019
Inventor's Sign	aftere		Day	Month	Year
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Rev 8/2019 (HPDC Assignment)

PATENT APPLICATION

85053990 RECORD ID:

### **ASSIGNMENT OF PATENT APPLICATION**

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

PREPROCE	SSING SENSOR DATA F	OR MACHINE LEARNING	i.		
Filing Date:	14 Mar 2019	Application No.:	PCT/US2019/022222	Patent Office: US	;
the subject mat	ter, including any and all inv	ventions, improvements, and	discoveries, set forth in said appli	ication for patent (as us	– eď

herein "patent" refers to any form of intellectual property protection including, without limitation, invention rights, utility patent rights, design rights, and utility model rights) (hereinafter "Inventions"); any and all existing and future applications for patent of any country or region or under any international agreement for any of said Inventions (including, without limitation, said application for patent, any and all applications for patent directly or indirectly claiming priority to or benefit of any application for patent for any of said Inventions, any and all applications for patent from which any application for patent for any of said Inventions directly or indirectly claims priority or benefit, and any and all continuation applications of, continuation-in-part applications (hereinafter CIPs) of, divisional applications of, national-phase applications of, regional-phase applications of, renewals of, and substitutes for any application for patent for any of said Inventions) (hereinafter "Applications for Patent"); any and all patents which may be granted on or as a result of said Applications for Patent (hereinafter "Patents"); and any and all reissues, reexaminations, and extensions of said Applications for Patent or said Patents.

I HEREBY represent that I convey my full rights in all countries and regions and under all international agreements to the entire right, title, and interest herein assigned and transferred, and that I have not executed and will not execute any agreement in conflict berewith:

AND I HEREBY authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to file said Applications for Patent in its name or in my name in any country or region or under any international agreement, and further authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to insert the filing date, application number, and patent office of said application for patent, now identified by the Record ID and title set forth above, when known to them:

AND I HEREBY authorize and request the officials of all countries and regions and under all international agreements whose duty it is to issue patents, to issue to HPDC, its successors, or its assigns, as assignee of my entire right, title, and interest, said Patents, in accordance with the terms of this assignment and transfer,

AND I HEREBY covenant and agree that I will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title in said Inventions, Applications for Patent, and Patents, to HPDC, its successors, or its assigns; communicate to HPDC, its successors, its assigns, its nominees, or its legal representatives, all known facts respecting said Inventions, Applications for Patent, and Patents; testify in any legal or administrative proceedings and sign all lawful papers (including, without limitation, divisional applications, continuation applications, CIPs, and reissue applications) relating to said inventions, Applications for Patent, and Patents; and make all rightful oaths and declarations and generally to do everything possible to aid HPDC, its successors, its assigns, its nominees, and its legal representatives to obtain, maintain, and enforce, for its or their own benefit, proper intellectual property protection for said Inventions, Applications for Patent, and Patents, provided the expenses which may be incurred by me in lending such cooperation and assistance are paid by HPDC, its successors, its assigns, its nominees, or its legal representatives.

IN WITNESS WHEREOF, I hereunto set my hand and seal: 26 FEBRUARY 2019
Month Year Inventor's Signature

**Family Name** 

Rev 8/2018 (HPDC Assignment)

Joao Eduardo Carrion Given (First and Middle) Name(s)

REEL: 056582 FRAME: 0124

PATENT		

RECORD	ID:	85053990
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### **ASSIGNMENT OF PATENT APPLICATION**

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and

transfer and hereby assign and transfer to HEW having its principal place of business in Housto title, and interest, including all rights of priority parentheses if said application for patent is in an	n, Texas, (hereinafte r, in, to, and under r	r "HPDC"), it	s successors, and its	assigns, my entire right,
PREPROCESSING SENSOR DATA FOR MA	achine Learning			
Filing Date: 14 Mar 2019	Application No.:	PCT/US	2019/022222	Patent Office: US
the subject matter, including any and all invention herein 'patent' refers to any form of intellectual pidesign rights, and utility model rights) (hereins country or region or under any international agrepatent, any and all applications for patent directival inventions, any and all applications for patent directival inventions, any and all applications for patent of, divisional applications of, national-phase appaication for patent for any of said Inventions) on or as a result of said Applications for Patent of said Applications for Patents.	reperty protection inc fiter "Inventions"); any sement for any of said y or indirectly claimin, tent from which any all continuation applic plications of, regional (hereinafter "Applications)	luding, without and all exi- Inventions ( g priority to our application for a single application for phase applications for Pate for Pate applications for	ut limitation, invention sting and future appli including, without limi or patent for any applic or patent for any of s stinuation-in-part appli tallons of, renewals or out?), any and all pates	rights, utility patent rights, cations for patent of any tation, said application for atton for patent for any of said Inventions directly or cations (hareinafter CIPs) if, and substitutes for any nts which may be granted
I HEREBY represent that I convey my full entire right, title, and interest herein assigned an conflict herewith;				
AND I HEREBY authorize HPDC, its su Applications for Patent in its name or in my na authorize HPDC, its successors, its assigns. I number, and patent office of said application for them:	ime in any country o to nominees, and its	r region or u legal repres	inder any internations sentatives to insert th	al agreement, and further ne filing date, application
AND I HEREBY authorize and request the duty it is to issue patents, to issue to HPDC, its Patents, in accordance with the terms of this ass	successors, or its as	signs, as ass	s and under all internations of my entire rig	ational agreements whose ht, title, and interest, said
AND I HEREBY covenant and agree that I is such papers as may be necessary or desirable HPDC, its successors, or its assigns; communical known facts respecting said inventions. Applications all lewful papers (including, without applications) retaining to said inventions, Applications) retaining to said inventions. Applications in the said inventions and HPDC maintain, and enforce, for its or their own benefit and Patents, provided the expenses which may its successors, its assigns, its nominees, or its let	e to perfect the title are to HPDC, its succi cations for Patent, ar limitation, divisional attons for Patent, and its successors, its a proper intellectual proper i	in said Inver essors, its as id Patents; to applications, Patents; an seigns, its no operty protect	ntions, Applications for signs, its nominees, or estify in any legal or a continuation applica id make all rightful or ominees, and its legal ction for said invention	r Patent, and Patents, to r its legal representatives, dministrative proceedings, itions, CIPs, and reissue tiths and declarations and representatives to obtain is, Applications for Patent
IN WITNESS WHEREOF, I hereunto set m	y hand and seal:			
Augandry 5, da Gilva Inventor's Signature	<u> 4.</u>	25 Day	Christy Month	20/9 Year
Alexandre Santos da Silva Jr Given (First and Middle) Name(s) Family Nam	8			

Rev 8/2018 (HPDC Assignment)

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### ASSIGNMENT OF PATENT APPLICATION

t, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and ŧ. m

having its princ title, and interes	reby assign and transfer to lipal place of business in Historians in Historians all rights of pased application for patent is	ouston, Texas, (hereinafte riority, in, to, and under a	r "HPDC")	its successors, and it	s assigns, my entire right.
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Filing Date:	14 Mar 2019	Application No.:	PCT/U	S2019/022222	Patent Office: US
herein 'patent' design rights, a country or region patent, any and said Inventions indirectly claims of, divisional apapplication for pon or as a resu	ter, including any and all invite refers to any form of intelled and utility model rights) (he in or under any international all applications for patent of any and all applications for priority or benefit, and any applications of, national-phaspatent for any of said inventit of said Applications for Patent for Patent or said Pater	tual property protection inc reinafter "Inventions"); any I agreement for any of said lirectly or indirectly claiming or patent from which any and all continuation applic e applications of, regional- ions) (hereinafter "Applicat stent (hereinafter "Patents"	luding, without all extended all extended all extended application ations of, or other long for Pations for Pations for Pations for Pations for Pations applications for Pations for Patio	out limitation, invention isting and future app (including, without lim or benefit of any appli for patent for any of intinuation-in-part app ications of, renewals ent"); any and all pate	r rights, utility patent rights, ilications for patent of any iltation, said application for ication for patent for any of said Inventions directly or ilications (hereinafter CIPs) of, and substitutes for any mis which may be granted
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	SS WHEREOF, I hereunto s	et my hand and seal:			
-Sheet b	4. F		25	FEBRUARY	2014
Inventor's Signa			Day	Month	Year
Juliano Cardoso Vacaro Given (First and Middle) Name(s) Family Name					

Rev 8/2018 (HPDC Assignment)

PREPROCESSING SENSOR DATA FOR MACHINE LEARNING

RECORD ID:	85053990
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### **ASSIGNMENT OF PATENT APPLICATION**

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

Filing Date:	14 Mar 2019	Application No.:	PCT/US2019/022222	Patent Office: <u>US</u>
herein "patent" design rights, a country or region patent, any and said Inventions indirectly claims of, divisional as application for a on or as a resu	refers to any form of intelle and utility model rights) (i in or under any internation I all applications for patent , any and all applications i priority or benefit, and an aplications of national-one patent for any of said inve	ictual property protection inc nereinafter "Inventions"); an val agreement for any of sale directly or indirectly claimin for patent from which any by and all continuation applicates applications of, regional ntions) (hereinafter "Applica Patent (hereinafter "Patents"	d discoveries, set forth in said appluding, without limitation, invention and all existing and future applit for any application for patent for any application for patent for any application of, continuation-in-part applicate applications of, continuation-in-part application application of, renewals place application of, renewals ions for Patent'); any and all patent and any and all reissues, reex-	n rights, utility patent rights olications for patent of any nitation, said application fo lication for patent for any o said Inventions directly o plications (hereinafter CIPs of, and substitutes for any ents which may be granted

I HEREBY represent that I convey my full rights in all countries and regions and under all international agreements to the entire right, title, and interest herein assigned and transferred, and that I have not executed and will not execute any agreement in conflict herewith:

AND I HEREBY authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to file said Applications for Patent in its name or in my name in any country or region or under any international agreement, and further authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to insert the filing date, application number, and patent office of said application for patent, now identified by the Record ID and title set forth above, when known to them:

AND I HEREBY authorize and request the officials of all countries and regions and under all international agreements whose duty it is to issue patents, to issue to HPDC; its successors, or its assigns, as assignee of my entire right, title, and interest, said Patents, in accordance with the terms of this assignment and transfer.

AND I HEREBY covenant and agree that I will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title in said Inventions, Applications for Patent, and Patents, to HPDC, its successors, or its assigns; communicate to HPDC, its successors, its assigns, its nominees, or its legal representatives, all known facts respecting said Inventions, Applications for Patent, and Patents; testify in any legal or administrative proceedings and sign all lawful papers (including, without limitation, divisional applications, continuation applications, CIPs, and reissue applications) relating to said Inventions, Applications for Patent, and Patents; and make all rightful oaths and declarations and generally to do everything possible to aid HPDC, its successors, its assigns, its nominees, and its legal representatives to obtain, maintain, and enforce, for its or their own benefit, proper intellectual property protection for said Inventions, Applications for Patent, and Patents, provided the expenses which may be incurred by me in lending such cooperation and assistance are paid by HPDC, its successors, its assigns, its nominees, or its legal representatives.

Rev 8/2018 (HPDC Assignment)

RECORDED: 06/18/2021