

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5681272

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the INCORRECTLY SUBMITTED NAMES OF INVENTOR MISHA MAN RAY DENIL AND JOAO FERDINANDO GOMES DE FREITAS previously recorded on Reel 047804 Frame 0136. Assignor(s) hereby confirms the ASSIGNMENT.
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MISHA MAN RAY DENIL	06/21/2017
Tom Schaul	06/21/2017
Marcin Andrychowicz	06/22/2017
JOAO FERDINANDO GOMES DE FREITAS	06/21/2017
Sergio Gomez Colmenarejo	06/21/2017
Matthew William Hoffman	06/28/2017
David Benjamin Pfau	06/21/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GOOGLE INC.
<b>Street Address:</b>	1600 AMPHITHEATRE PARKWAY
<b>City:</b>	MOUNTAIN VIEW
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94043
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16302592
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
<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>	(202) 626-7780
<b>Email:</b>	apsi@fr.com, lswanson@fr.com
<b>Correspondent Name:</b>	SARAH HARRISON-SCHMIDT
<b>Address Line 1:</b>	FISH & RICHARDSON P.C.
<b>Address Line 2:</b>	P.O.BOX 1022
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022
<b>ATTORNEY DOCKET NUMBER:</b>	45288-7967US1
<b>NAME OF SUBMITTER:</b>	LISA SWANSON

PATENT

<b>SIGNATURE:</b>	/Lisa Swanson/
<b>DATE SIGNED:</b>	08/22/2019
<b>Total Attachments: 4</b> source=Executed_Assignment 45288-7967US1#page1.tif source=Executed_Assignment 45288-7967US1#page2.tif source=Executed_Assignment 45288-7967US1#page3.tif source=Executed_Assignment 45288-7967US1#page7.tif	

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5288669

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Misha Man Denil	06/21/2017
Tom Schaul	06/21/2017
Marcin Andrychowicz	06/22/2017
Joao Ferdinando Freitas	06/21/2017
Sergio Gomez Colmenarejo	06/21/2017
Matthew William Hoffman	06/28/2017
David Benjamin Pfau	06/21/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GOOGLE INC.
<b>Street Address:</b>	1600 AMPHITHEATRE PARKWAY
<b>City:</b>	MOUNTAIN VIEW
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94043
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16302592
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
<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>	+1 (650) 839-5164
<b>Email:</b>	apsi@fr.com, lswanson@fr.com
<b>Correspondent Name:</b>	MICHAEL PORTNOV
<b>Address Line 1:</b>	FISH & RICHARDSON P.C.
<b>Address Line 2:</b>	P.O.BOX 1022
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022
<b>ATTORNEY DOCKET NUMBER:</b>	45288-7967US1
<b>NAME OF SUBMITTER:</b>	LISA SWANSON
<b>SIGNATURE:</b>	/Lisa Swanson/
<b>DATE SIGNED:</b>	12/18/2018

**ASSIGNMENT and CONFIRMATION**

We, Misha Man Ray Denil, Tom Schaul, Marcin Andrychowicz, Joao Ferdinando Gomes de Freitas, Sergio Gomez Colmenarejo, Matthew William Hoffman and David Benjamin Pfau, each hereby confirm the assignment and transfer to Google Inc., a Delaware corporation having a place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043, and its successors and assigns (collectively, "ASSIGNEE") of all of our individual and joint right, title and interest throughout the world in and to any and all inventions and improvements that are the subject or subjects of a patent application entitled

**TRAINING MACHINE LEARNING MODELS**

that names us as inventors, and was filed in PCT Receiving Office of the United States Patent and Trademark Office (USPTO) on May 19, 2017 as Application No. PCT/US2017/033703, and which claims priority to U.S. Application Serial No. 62/339,785, filed on May 20, 2016, which was previously assigned to Assignee. We authorize and request the attorneys filing the application to complete this assignment by inserting the filing date and serial number of the application when known. The foregoing assignment and transfer occurred by operation of one or more agreements relating to our employment by Google Inc. or an affiliate of Google Inc. Should any of us have any remaining interest, we each hereby assign and transfer any right, title or interest we may have in the above-mentioned inventions and improvements anywhere in the world to ASSIGNEE.

This assignment and confirmation includes the foregoing patent application or patent; all legal equivalents thereof in any country and all patents issuing therefrom; all patents, utility models, and design registrations granted for any of said inventions and improvements throughout the world; and the right to claim priority based on the filing date of the foregoing patent application or patent under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes. We authorize ASSIGNEE to

apply in all countries in our names or in the name of ASSIGNEE for patents, utility models, and design registrations and like rights of exclusion and for inventors' certificates for the assigned inventions and improvements.

The foregoing assignments have been made for good and valuable consideration, the receipt of which is hereby acknowledged, and in accordance with the employment-related agreements existing at the time the above-mentioned inventions and improvements were made.

We hereby represent and covenant that no assignment, agreement or encumbrance has been or will be made or entered into by us that would conflict with the above-mentioned assignment of the inventions and improvements to ASSIGNEE.

We further covenant for ourselves and our respective heirs, legal representatives and assigns to provide to ASSIGNEE promptly upon the request of ASSIGNEE all pertinent facts and documents relating to any of the above-mentioned inventions and improvements, patent applications, patents and legal equivalents, as may be known and accessible to us; to testify as to the same in any interference, litigation, or proceeding relating thereto; and promptly to execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce any of the above-mentioned applications, inventions and improvements, patents and equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Dated: 6/21/2017

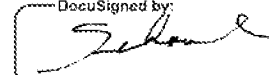
DocuSigned by:



6C265206033483...  
Misha Man Ray Denil

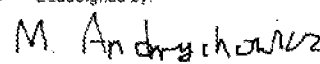
Dated: 6/21/2017

DocuSigned by:



6C265206033483...  
Tom Schaul

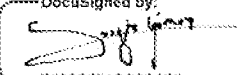
Dated: 6/22/2017

DocuSigned by:  
  
Marcin Andrychowicz

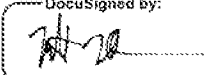
Dated: 6/21/2017

DocuSigned by:  
  
Joao Ferdinando Gomes de Freitas

Dated: 6/21/2017

DocuSigned by:  
  
Sergio Gomez Colmenarejo

Dated: 6/28/2017

DocuSigned by:  
  
Matthew William Hoffman

Dated: 6/21/2017

DocuSigned by:  
  
David Benjamin Pfau

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