505717779 10/10/2019 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5764590

		NEW ASSIGNM	ENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ				
		Name	Name		
RAJEEV RANJAN					
SWAMINATHAN SANKA	AYANAN	ANAN			
CARLOS CASTILLO	10/11/2017				
RAMALINGAM CHELLA					
RECEIVING PARTY DA	ТА				
Name:	UNIVERSITY OF MARYLAND, COLLEGE PARK				
Street Address:	7999 REGENTS DRIVE				
Internal Address:	2130 MITCHELL BUILDING				
City:	COLLEGE PARK				
State/Country:	MARYLAND				
Postal Code:	20742	5213			
PROPERTY NUMBERS	Total: 1				
Property Type		Numbe			
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Property Type Application Number:		16340859	۲ <u> </u>		
Application Number:			r		
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source=IS-2016-148 Assignment Sankaranarayanan Signed#page1.tif source=IS-2016-148 Assignment Chellappa Signed#page1.tif source=IS-2016-148 Assignment Ranjan signed#page1.tif source=IS-2016-148 Assignment Castillo Countersigned#page1.tif

THIS AGREEMENT by and between: Swaminathan Sankaranarayanan an individual having a principal residence at 4006 Underwood Street University Park MD 20782 (nereinafter referred to as "Assignor"), and the University of Maryland, College Park (hereinafter referred to as "Assigned").

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. 15-2016-148 entitled

UltraFace - An All-in-One Convolutional Neural Network for Face Analysis

and for U.S. Provisional Patent Application number 62/406260 filed October 19, 2015 UteraFace - An All-In-One Convolutional Neural Network for Face Analysis' and for any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, releases, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration turnished by Assignee to Assigner, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby ocvenant and agree as follows:

Section 1. Assignment of the Works.

Assigner hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assigner's right, title and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewners, including all rights of registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interests under applicable law.

Section 2. University of Maryland Policy on Intellisctual Property.

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regenis of the University of Maryland, and as amended by them from time to time. Royally income shall be allocated as set forth in this policy.

Section 3. Warranty.

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, title or interest in or to the Works to any other party; and covenants not to take such action in the future.

Section 4. Jurisdiction.

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of America. Any legal proceedings involving claims or disputes regarding this agreement shall be brought in the appropriate court in the State of Maryland.

WHEREAS, the parties have caused this Assignment to be executed on the dates below.

ASSIGNOR

Agreed to by:

Printed Name. Swaminsthan Sankaranarayanan tementer

11/04/2016

Data:

ASSIGNEE (University of Maryland) Acknowledged and Agreed to by:

Printed Name: <u>Felicia Wilk</u> Title: Assistant Director, Intellectual Property

10/10/2017 Date:

PATENT REEL: 050682 FRAME: 0276

THIS AGREEMENT by and between:		Ramalingam Chellap	an individual having a principal residence at
9104 Mistwood Drive	Potomac	MD 20854 (here	nafter referred to as "Assignor"), and the University of Maryland, College
Park (hereinafter referred to a	as "Assignee").		

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. IS-2016-148 entitled

UltraFace - An All-in-One Convolutional Neural Network for Face Analysis

and for U.S. Provisional Patent Application number 52/405260 filed October 10, 2016 titled, "UltraFace - An All-in-One Convolutional Neural Network for Face Analysis" and for any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

Section 1. Assignment of the Works.

Assignor hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assignor's right, title and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewhere, including all rights or registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright works incident to copyright the terms of any and all such copyrights and any term thereafter granted during which the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interest under applicable law.

Section 2. University of Maryland Policy on Intellectual Property.

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time. Royally income shall be allocated as set forth in this policy.

Section 3. Warranty.

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, title or interest in or to the Works to any other party; and covenants not to take such action in the future.

Section 4. Jurisdiction.

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of Arnenca. Any legal proceedings involving claims or disputes regarding this agreement shall be brought in the appropriate court in the State of Maryland.

WHEREAS, the parties have caused this Assignment to be executed on the dates below.

Agreed to by: Kama Chellappe Date

ASSIGNEE (University of Maryland) Acknowledged and Agreed to by:

lee-ht

Printed Name: Felicia Metz Title: Assistant Director, Intellectual Property

10/10/2017 Date:

PATENT REEL: 050682 FRAME: 0277

THIS AGREEMENT by and between: **4805 Erie Street College Park** Park (hereinafter referred to as "Assignee").

Raieev Ranian

an individual having a principal residence at

MD 20740 (hereinafter referred to as "Assignor"), and the University of Maryland, College

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. IS-2015-148 entitled

UltraFace - An All-in-One Convolutional Neural Network for Face Analysis

and for U.S. Provisional Patent Application number 52/406260 filed October 10, 2015 tilled, "UltraFace - An All-in-One Convolutional Neural Network for Face Analysis" and for any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS. Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Tille 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

Section 1. Assignment of the Works.

Assignor hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assignor's right, tille and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewhere, including all rights of registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interests under applicable law.

Section 2. University of Maryland Policy on Intellectual Property.

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time. Royalty income shall be allocated as set forth in this policy.

Warranty. Section 3.

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, title or interest in or to the Works to any other party; and covenants not to take such action in the future.

Section 4. Jurisdiction.

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of America. Any legal proceedings involving claims or disputes regarding this agreement shall be brought in the appropriate court in the State of Maryland.

WHEREAS, the parties have caused this Assignment to be executed on the dates below.

ASSIGNOR

ngreed to by: Kylew Ra Printed Name: <u>Rajeev Ranjan</u> Inventor Date: <u>08/11/2017</u>

ASSIGNEE (University of Maryland) Acknowledged and Agreed to by:

Printed Name: Felicia Metz Title: Assistant Director, Intellectual Property

10/10/2017 Date'

> PATENT REEL: 050682 FRAME: 0278

THIS AGREEMENT by and between: 11303 Estona Dr. Silver Spring Park (hereinafter referred to as "Assignee").

an individual having a principal residence at

Carlos Castillo MD 20902 (hereinafter referred to as "Assignor"), and the University of Maryland, College

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. IS-2016-148 entitled

UltraFace - An All-in-One Convolutional Neural Network for Face Analysis

and for U.S. Provisional Patent Application number 62/406260 filed October 10, 2016 titled, "UltraFace - An All-in-One Convolutional Neural Network for Face Analysis" and for any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

Assignment of the Works. Section 1.

Assignor hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assignor's right, title and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewhere, including all rights of registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interests under applicable law.

Section 2. University of Maryland Policy on Intellectual Property.

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time. Royalty income shall be allocated as set forth in this policy.

Section 3. Warranty.

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, title or interest in or to the Works to any other party; and covenants not to take such action in the future.

Section 4. Jurisdiction.

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of America. Any legal proceedings involving claims or disputes regarding this agreement shall be brought in the appropriate court in the State of Marviand.

WHEREAS, the parties have caused this Assignment to be executed on the dates below.

ASSIGNOR

Agreed to by:

Printed Name: Carlos Castillo

Date

ASSIGNEE (University of Maryland) Acknowledged and Agreed to by

Printed Name: Felicia Metz

Title: Assistant Director, Intellectual Property

Date

PATENT REEL: 050682 FRAME: 0279

RECORDED: 10/10/2019