

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT8065819

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YINGZHEN YANG	10/31/2018
JIANCHAO YANG	10/18/2018
NING XU	10/15/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SNAP INC.
<b>Street Address:</b>	3000 31ST STREET
<b>City:</b>	SANTA MONICA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	90405
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16949994
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>Email:</b>	request@slwip.com
<b>Correspondent Name:</b>	SCHWEGMAN LUNDBERG & WOESSNER, P.A.
<b>Address Line 1:</b>	P.O. BOX 2938
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402
<b>ATTORNEY DOCKET NUMBER:</b>	4218.567US2
<b>NAME OF SUBMITTER:</b>	CATINA JENSEN
<b>SIGNATURE:</b>	/CaTina Jensen/
<b>DATE SIGNED:</b>	07/19/2023
<b>Total Attachments: 6</b>	
source=4218567US2_ASSN#page1.tif	
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source=4218567US2_ASSN#page5.tif	



RECORDATION FORM COVER SHEET  
PATENTS ONLY

Form PTO-1595 (Rev. 6-18)  
OMB No. 0651-0027 (exp. 10/31/2024)

U.S. Department of Commerce  
United States Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies):

Yingzhen Yang, Jianchao Yang, Ning Xu

Additional name(s) of conveying party(ies) attached?

Yes  No

3. Nature of conveyance/Execution Date(s):

Execution Date(s): October 31, 2018, October 18, 2018,  
October 15, 2018

- Assignment  Merger  
 Security Agreement  Change of Name  
 Joint Research Agreement  
 Government Interest Assignment  
 Executive Order 9424, Confirmatory License  
 Other

2. Name and address of receiving party(ies):

Name: Snap Inc.

Street 3000 31st Street  
Address:

City: Santa Monica

State/Province: CA

Zip: 90405

Country: United States of America

Additional name(s) & address(es) attached?  
 Yes  No

4. Application number(s) or patent number(s):  This document serves as an Oath/Declaration (37 CFR 1.63)

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 16/949,994

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Gregory R. Grace

Address:

Schwegman Lundberg & Woessner, P.A.  
P.O. Box 2938  
Minneapolis, Minnesota 55402

Phone Number: (612) 373-6970

Docket Number: 4218.567US2

Email Address: request@slwip.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41): \$0.00

Authorized to be charged to deposit account 19-0743

Enclosed

None required (government interest not affecting title)

8. Payment Information

Deposit Account No.: 19-0743

Authorized User Name: Gregory R. Grace

9. Signature:

/ Gregory R. Grace

/ Jul 17, 2023

Gregory R. Grace/Reg. No. 59,733

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and documents: 6

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

**PATENT**  
**REEL: 064312 FRAME: 0333**

**ASSIGNMENT**

WHEREAS, Yingzhen Yang, Jianchao Yang and Ning Xu (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention"); as described in the patent application filed on October 9, 2018, assigned US application serial number 16/155,656, and titled COMPACT NEURAL NETWORKS USING CONDENSED FILTERS and as described in a provisional patent application filed on October 9, 2017 assigned United States application serial number 62/569,907, and titled COMPACT NEURAL NETWORKS USING COMPRESSED FILTERS.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Snap Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 2772 Donald Douglas Loop North, Santa Monica, CA 90405, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the invention which is disclosed in the above-identified application or applications;  
such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 144407 may (directly or through his/her designee) delete, insert, or alter any

information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignor:

(Signature): / Yingzhen Yang /

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Name: Yingzhen Yang

City/State: Los Angeles, CA

Date: 10/31/2018

Assignor:

(Signature): / Jianchao Yang /

Name: Jianchao Yang

City/State: Los Angeles, CA

Date: 10/18/2018

