PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5625312

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LIDIIA BOGDANOVYCH	08/30/2017
WILLIAM BRENDEL	08/31/2017
SAMUEL EDWARD HARE	09/02/2017
FEDIR POLIAKOV	09/07/2017
GUOHUI WANG	08/28/2017
XUEHAN XIONG	09/12/2017
JIANCHAO YANG	09/05/2017
LINJIE YANG	08/28/2017

RECEIVING PARTY DATA

Name:	SNAP INC.
Street Address:	2772 DONALD DOUGLAS LOOP NORTH
City:	SANTA MONICA
State/Country:	CALIFORNIA
Postal Code:	90405

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15706057

CORRESPONDENCE DATA

Fax Number:

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.

Email:	request@slwip.com
Correspondent Name:	SCHWEGMAN LUNDBERG & WOESSNER P.A.
Address Line 1:	PO BOX 2938
Address Line 4:	MINNEAPOLIS, MINNESOTA 55402-0938

ATTORNEY DOCKET NUMBER:	4218.463US1
NAME OF SUBMITTER:	MICHELLE RED BEAR
SIGNATURE:	/Michelle Red Bear/
DATE SIGNED:	07/18/2019

Total Attachments: 11
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RECORDATION FORM COVER SHEET
PATENTS ONLY

Atty Ref/Docket No.: 4218.463US1   Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

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

1. Name of conveying party(ies):

Lidiia Bogdanovych, William Brendel, Samuel Edward Hare, Fedir Poliakov, Guohui Wang, Xuehan Xiong, Jianchao Yang, Linjie Yang

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

[ ]Yes [X]No

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

Name: Snap Inc.

Street Address: 2772 Donald Douglas Loop North

City: Santa Monica   State: CA   Zip: 90405
Country: United States of America

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

3. Nature of conveyance:

[X] Assignment   [ ] Merger
[ ] Security Agreement [ ] Change of Name
[ ] Other

Execution Date: August 30, 2017, August 31, 2017, September 2, 2017, September 7, 2017, August 28, 2017, September 12, 2017, September 5, 2017, August 28, 2017

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

     A. Patent Application No.(s)   B. Patent No.(s)

     Serial No. 15/706,057, Filed September 15, 2017

Additional numbers attached? [ ]Yes [X]No

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

Name: Christopher J. Brittain

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

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41):$ 0.00

     []Enclosed
     []Authorized to be charged to deposit account 19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

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9. Statement and signature.
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Christopher J. Brittain/Reg. No. 67,497	/Christopher J. Brittain/	7/18/2019
Name of Person Signing	Signature	Date

Total number of pages including cover sheet: 11

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents and Trademarks
Mail Stop Assignment Recordation Services
P.O. Box 1450
Alexandria, VA 22313-1450

ASSIGNMENT

WHEREAS, Lidiia Bogdanovych, William Brendel, Samuel Edward Hare, Fedir Poliakov, Guohui Wang, Xuehan Xiong, Jianchao Yang and Linjie Yang (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 _____, assigned US application serial number _____, and titled GENERATING AN IMAGE MASK USING MACHINE LEARNING and as described in a provisional patent application filed on April 4, 2017 assigned United States application serial number 62/481,415, and titled GENERATING A PIXEL MASK USING MACHINE LEARNING.

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 63 Market Street, Venice, CA 90291, 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

Assignment
Assignors: Lidiia Bogdanovych et al.
Title: GENERATING AN IMAGE MASK USING MACHINE LEARNING
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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. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

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:

Assignment
Assignors: Lidiia Bogdanovych et al.
Title: GENERATING AN IMAGE MASK USING MACHINE LEARNING
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Docket No: 4218.463US1

Assignor:

(Signature): /   _Lidiia Bogdanovych_   /

Name: **Lidiia Bogdanovych**
City/State: **Los Angeles, CA**

Date: 8/30/2017

Assignment

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Assignors: Lidiia Bogdanovych et al.
Title: GENERATING AN IMAGE MASK USING MACHINE LEARNING
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Assignor:

(Signature):   /   _William Brendel_   /

                      Name: **William Brendel**
                      City/State: **Los Angeles, CA**

Date: 8/31/2017

Assignment
Assignors: Lidiia Bogdanovych et al.
Title: GENERATING AN IMAGE MASK USING MACHINE LEARNING
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Assignor:

(Signature):   /   Samuel Edward Hare   /

                      Name: **Samuel Edward Hare**
                      City/State: **Pacific Palisades, CA**

Date: 9/2/2017

Assignment
Assignors: Lidiia Bogdanovych et al.
Title: GENERATING AN IMAGE MASK USING MACHINE LEARNING
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Assignor:

(Signature):   /   *Fedir Poliakov*   /

Name: **Fedir Poliakov**
City/State: **Marina Del Rey, CA**

Date: 9/7/2017

Assignment
Assignors: Lidiia Bogdanovych et al.
Title: GENERATING AN IMAGE MASK USING MACHINE LEARNING
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Assignor:

(Signature):   /   *Guohui Wang*   /

Name: **Guohui Wang**
City/State: **Los Angeles, CA**

Date: 8/28/2017

Assignment
Assignors: Lidiia Bogdanovych et al.
Title: GENERATING AN IMAGE MASK USING MACHINE LEARNING
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Assignor:

(Signature):   /   Xuehan Xiong   /

Name: **Xuehan Xiong**
City/State: **Los Angeles, CA**

Date: 9/12/2017

Assignment
Assignors: Lidiia Bogdanovych et al.
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Assignor:

(Signature):   /   *Jianchao Yang*   /
_____

Name: **Jianchao Yang**

City/State: **Venice, CA**

Date: 9/5/2017

Assignor:

(Signature):   /   *Linjie Yang*   /

Name: **Linjie Yang**

City/State: **Los Angeles, CA**

Date: 8/28/2017