CERTIFICATE OF COPYRIGHT REGISTRATION

FORM TX
UNITED STATES COPYRIGHT OFFICE

This certificate, issued under the seal of the Copyright Office in accordance with the provisions of section 410(a) of title 17, United States Code, attests that copyright registration has been made for the work identified below. The information in this certificate has been made a part of the Copyright Office records.

REGISTER OF COPYRIGHTS
United States of America

OFFICIAL SEAL

REGISTRATION NUMBER

TX 3 262 339

TX TXU

EFFECTIVE DATE OF REGISTRATION

FEB 24 1992
Month Day Year

91-23 423
DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

1 TITLE OF THIS WORK ▼ A COMPARATIVE STUDY OF HASH FUNCTIONS FOR A NEW HASH-BASED RELATIONAL JOIN ALGORITHM

PREVIOUS OR ALTERNATIVE TITLES ▼

PUBLICATION AS A CONTRIBUTION If this work was published as a contribution to a periodical, serial, or collection, give information about the collective work in which the contribution appeared. Title of Collective Work ▼

If published in a periodical or serial give: Volume ▼ Number ▼ Issue Date ▼ On Pages ▼

2 NOTE

a NAME OF AUTHOR ▼ SHIN, DONG KEUN

DATES OF BIRTH AND DEATH
Year Born ▼ 1959 Year Died ▼

Was this contribution to the work a "work made for hire"? ☐ Yes ☒ No

AUTHOR'S NATIONALITY OR DOMICILE Name of Country
OR Citizen of ▶ UNITED STATES
Domiciled in ▶

WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK
Anonymous? ☐ Yes ☒ No
Pseudonymous? ☐ Yes ☒ No
If the answer to either of these questions is "Yes", see detailed instructions.

NATURE OF AUTHORSHIP Briefly describe nature of the material created by this author in which copyright is claimed. ▼ ENTIRE TEXT

b NAME OF AUTHOR ▼

DATES OF BIRTH AND DEATH
Year Born ▼ Year Died ▼

Was this contribution to the work a "work made for hire"? ☐ Yes ☐ No

AUTHOR'S NATIONALITY OR DOMICILE Name of Country
OR Citizen of ▶
Domiciled in ▶

WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK
Anonymous? ☐ Yes ☐ No
Pseudonymous? ☐ Yes ☐ No
If the answer to either of these questions is "Yes", see detailed instructions.

NATURE OF AUTHORSHIP Briefly describe nature of the material created by this author in which copyright is claimed. ▼

c NAME OF AUTHOR ▼

DATES OF BIRTH AND DEATH
Year Born ▼ Year Died ▼

Was this contribution to the work a "work made for hire"? ☐ Yes ☐ No

AUTHOR'S NATIONALITY OR DOMICILE Name of Country
OR Citizen of ▶
Domiciled in ▶

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Anonymous? ☐ Yes ☐ No
Pseudonymous? ☐ Yes ☐ No
If the answer to either of these questions is "Yes", see detailed instructions.

NATURE OF AUTHORSHIP Briefly describe nature of the material created by this author in which copyright is claimed. ▼

0489614688

3 YEAR IN WHICH CREATION OF THIS WORK WAS COMPLETED 1991 ◀YEAR
This information must be given in all cases.

DATE AND NATION OF FIRST PUBLICATION OF THIS PARTICULAR WORK
Complete this information ONLY if the work has been published. MONTH ▶ SEPTEMBER DAY ▶ 16 YEAR ▶ 1991
U.S.A. ◀NATION

4 COPYRIGHT CLAIMANT(S) Name and address must be given even if the claimant is the same as the author given in space 2. ▼
SHIN, DONG KEUN
13613 DEERING LANE
MOORPARK, CA 93021

See instructions before completing this space.

APPLICATION RECEIVED
FEB 24 1992
ONE DEPOSIT RECEIVED
FEB 24 1992 *
TWO DEPOSITS RECEIVED
REMITTANCE NUMBER AND DATE

DO NOT WRITE HERE OFFICE USE ONLY

TRANSFER If the claimant(s) named here in space 4 are different from the author(s) named in space 2, give a brief statement of how the claimant(s) obtained ownership of the copyright. ▼

MORE ON BACK ▶ • Complete all applicable spaces (numbers 5-11) on the reverse side of this page. • See detailed instructions. • Sign the form at line 10.

DO NOT WRITE HERE
Page 1 of 2 pages

"Special relief granted under 202.20 (d) of the C. O. reg."

TX 262 339

EXAMINED BY

CHECKED BY

FORM TX

☐ CORRESPONDENCE Yes

☐ DEPOSIT ACCOUNT FUNDS USED

FOR COPYRIGHT OFFICE USE ONLY

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

PREVIOUS REGISTRATION Has registration for this work, or for an earlier version of this work, already been made in the Copyright office? 5

☐ Yes ☒ No If your answer is "Yes," why is another registration being sought? (Check appropriate box) ▼

☐ This is the first published edition of a work previously registered in unpublished form.

☐ This is the first application submitted by this author as copyright claimant.

☐ This is a changed version of the work, as shown by space 6 on this application.

If your answer is "Yes," give: Previous Registration Number ▼ Year of Registration ▼

DERIVATIVE WORK OR COMPILATION Complete both space 6a & 6b for a derivative work; complete only 6b for a compilation. 6

a. Preexisting Material Identify any preexisting work or works that this work is based on or incorporates. ▼

b. Material Added to This Work Give a brief, general statement of the material that has been added to this work and in which copyright is claimed. ▼

See instructions before completing this space.

MANUFACTURERS AND LOCATIONS If this is a published work consisting preponderantly of nondramatic literary material in English, the law may require that the copies be manufactured in the United States or Canada for full protection. If so, the names of the manufacturers who performed certain processes, and the places where these processes were performed must be given. See instructions for details. 7

Names of Manufacturers ▼	Places of Manufacture ▼
UNIVERSITY MICROFILMS INC.	ANN ARBOR, MICHIGAN 48106

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a ☒ Copies and Phonorecords b ☐ Copies Only c ☐ Phonorecords Only

See instructions.

DEPOSIT ACCOUNT If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account. 9

Name ▼ UNIVERSITY MICROFILMS INC. Account Number ▼ DAO 64793

CORRESPONDENCE Give name and address to which correspondence about this application should be sent. Name/Address/Apt/City/State/Zip ▼

UNIVERSITY MICROFILMS INC.
300 NORTH ZEEB RD.
ANN ARBOR MICHIGAN 48106

Area Code & Telephone Number ▶ 313-761-4700

Be sure to give your daytime phone number. ◀

CERTIFICATION I, the undersigned, hereby certify that I am the 10

Check one ▶
☐ author
☐ other copyright claimant
☐ owner of exclusive right(s)
☒ authorized agent of SHIN, DONG KEUN

Name of author or other copyright claimant, or owner of exclusive right(s) ▲

of the work identified in this application and that the statements made by me in this application are correct to the best of my knowledge.

Typed or printed name and date ▼ If this is a published work, this date must be the same as or later than the date of publication given in space 3.

PATRICIA L. MARTELL date ▶ 09/20/91

Handwritten signature (X) ▼

Patricia L. Martell

MAIL CERTIFICATE TO

Certificate will be mailed in window envelope

Name ▼ SHIN, DONG KEUN

Number/Street/Apartment Number ▼ 13613 DEERING LANE

City/State/Zip ▼ MOORPARK, CA 93021

11

Have you:
- Completed all necessary spaces?
- Signed your application in space 10?
- Enclosed check or money order for $10 payable to Register of Copyrights?
- Enclosed your deposit material with the application and fee?

MAIL TO: Register of Copyrights, Library of Congress, Washington, D.C. 20559

#17 U.S.C. 506(e): Any person who knowingly makes a false representation of a material fact in the application for copyright registration provided for by section 409, or in any written statement filed in connection with the application, shall be fined not more than $2,500.

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