# Changbeom Shim, Ph.D.

Research Associate  $\diamond$  Dept. of Electrical and Computer Engineering  $\diamond$  Curtin University 4.14, New Technologies Bld. (314)  $\diamond$  Kent St., Bentley  $\diamond$  Western Australia, 6102, Australia http://scbeom.github.io/main & scbeom@gmail.com

#### Education

Mar. 2014 - Aug. 2019 Korea University South Korea

Ph.D. in Computer Science and Engineering

Mar. 2007 - Feb. 2014 Korea University South Korea B.E. in Electronics and Information Engineering

· On leave: Sept. 2008 - Feb. 2011, Military Service

# Professional Experiences

Research Associate

# Department of Electrical and Computer Engineering at Curtin University

Nov. 2019 - Present Australia

· Project 3: An intelligent system for crime analysis and prevention based on multi-object tracking and situational awareness

- · Project 2: A data-driven system for privacy-preserving pandemic prevention
- $\cdot$  Project 1: Efficient large-scale multi-object tracking

# Database Laboratory at Korea University

Mar. 2014 - Aug. 2019

South Korea Research Assistant

- · Project 3: A research on safe and convenient big data processing methods
- · Project 2: A research on privacy issues and privacy protection methods for social network services
- · Project 1: An intelligent system for crime detection/prevention and public security based on CCTV bigdata

## School of Engineering at RMIT University

Visiting Student of Dr. Du Yong Kim

Jan. 2019 - Feb. 2019

Australia

· Project: A research on random finite set approach to database applications

## Korea Institute of Science and Technology Information (KISTI)

Jul. 2013 - Feb. 2014

Student Researcher

South Korea

· Project: Research on analysis and application platform technologies for science and technology big data

# 3D Information Processing Laboratory at Korea University

Jan. 2011 - Jun. 2013

Student Researcher

South Korea

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#### Honors and Awards

Feb. 2019	KU Graduate Student Achievement Award, Korea University
Jul. 2018	Student Paper Contest Award, Korea Computer Congress (KCC)
Feb. 2018	Outstanding Ph.D. Candidate Paper Award, Korea University
Oct. 2017	Honorable Mention, IEEE Visual Analytics Science and Technology (VAST Challenge)
May 2015	Outstanding Paper Award, Korean DataBase Conference (KDBC)

#### Research Interests

Information Systems, Data Mining, and Machine Learning

- Query Processing, Spatio-Temporal Algorithms, Geo-Social Networks
- Bayesian Learning, Multi-Object Tracking

#### **Publications**

## Submitted

S1 Wooil Kim, Changbeom Shim, and Yon Dohn Chung, "SkyFlow: A Visual Analysis of High-dimensional Skylines in Time-series," Submitted

#### Journals

J5 Changbeom Shim, Gyuhyeon Sim, and Yon Dohn Chung, "Cohesive Ridesharing Group Queries in Geo-Social Networks," IEEE Access, 2020

J4 Wooil Kim, Changbeom Shim, Wan Heo, Sungmin Yi, and Yon Dohn Chung, "Moving View Field Nearest Neighbor Queries," Data & Knowledge Engineering, 2019

J3 Changbeom Shim, Wooil Kim, Wan Heo, Sungmin Yi, and Yon Dohn Chung, "Nearest Close Friend Search in Geo-Social Networks," Information Sciences, 2018

J2 Changbeom Shim, Wooil Kim, Wan Heo, Sungmin Yi, and Yon Dohn Chung, "ℓ-Close Range Friends Query on Social Grid Index," IEICE Transaction on Information and Systems, 2017

J1 Sungmin Yi, Changbeom Shim, and Yon Dohn Chung,
 "Reverse View Field Nearest Neighbor Queries,"
 Information Sciences, 2017

#### Conferences

C1 Wooil Kim, Changbeom Shim, Ilhyun Suh, and Yon Dohn Chung, "A Visual Explorer for Analyzing Trajectory Patterns," IEEE Conference on Visual Analytics Science and Technology, 2017

#### **Patents**

P2 Yon Dohn Chung, Changbeom Shim, and Wooil Kim, "Device for searching nearest close friends,"

Oct. 2020, Korea Registration Number: 10-2172236 Yon Dohn Chung, and Changbeom Shim,

"Device and method for recommending ride sharing group, recording medium for performing the method," Jan. 2020, Korea Registration Number: 10-2064376

## Teaching Experiences at Korea University

# Lecturer

P1

Fall 2018 COSE214: Algorithm

## Teaching Assistant

Fall 2017 COSE156: Python Programming Spring 2016 COSE213: Data Structure Fall 2015 COSE242: Data Communication Fall 2014 COSE102: Computer Programming

#### Technical Experiences

Computer Languages Java, Matlab, Python
Others PostgreSQL, MySQL, Hadoop

#### References

References available upon request