

CURRICULUM VITAE

Personal Information:

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Education:

- Ph.D., Distributed Database Systems, **Seoul National University** (with Thesis titled "Replication Server for Distributed Database Systems")
- Finished MSE, **Carnegie Mellon University**
- MS & BS. Dept. Industrial Engineering, **Seoul National University**

Positions Held:

2006 - present	Professor, Dept. of Industrial Engineering in INHA Univ.
2019 - present	Director: VOICE AI Institute, Inha Univ.
2019 - present	Steering Committee of IEEE BigComp
2013 - present	Executive Committee member of IEEE TCDE
2013 - present	Associate Editor: World Wide Web Journal, SUPE, CLUS, etc.
2014 - present	Editor-in-Chief: Big Data Service Journal
2007 - 2018	Editor-in-Chief: Journal of Inf. Tech. Architecture
2016 - 2017	President, Korea Database Society.
2002 - 2003	Visiting Professor, Dept. of Computer Science, UBC , Canada (host Prof. Raymond Ng) supported by KOSEF fund.

Serving Chair position, international conferences

ASONAM, APweb, BigComp, BigData, CIKM, Dasfaa, DBSW, Ideas, ACM BigDas, ITA, KJDB, VLDB, SocialCom, etc.

Program Committee Member, international conferences

APWeb 10-21, BigComp 15-23, BSI 13, BWCCA 12, C3S2E 09-21, CIKM 09-10, Dasfaa 11-23, IEEE DEST 2007, EIDWT 13, EDB 2011-17, FTRA 12-19, FutureTech 12-20, iiWAS 06-23, ideas 20-21, OTM 12, SCA 12, SNSW 12, VLDB 06, WAIM 06-18, ...

Patents (selected):

- More than 100 Patents including "DEVICE FOR SUPPLEMENTING VOICE AND METHOD FOR CONTROLLING THE SAME" US9271066B2

Books & Book Chapter:

- Data technology, Applications, and Theories, Springer 2021.
- Big data, Analyses, Services, and Smart Data, Springer, 2020.
- Database Modeling, Young Publishing Co., 2nd ed. 2015
- Management Information System, Park-Young-Sa Publishing Co., 2004.

Honors and Awards:

- Best Paper Award, ACM BigDas, 2016 & 2019, 2021.
- Best Paper Award: IEEE TCSC, 2012.
- Best Paper Award (more than 20) including KORMS 2006 & 2010, KCC 2008-22, Kosiper 2013-20, KIPA 2018, etc.
- Best Lecture Award: Inha Univ. 2017,
- Best Research Award: Inha Univ. 2018.

Keynote Speech:

The Essence of AI Where It Applied to, Jeongseok Library, 2023
How to communicate BEYOND MARS AND VENUS, NLPIR 2020
Data Utilization and Privacy Issues, 13th Int'l Conference on Autonomous Systems, 2020
Privacy Preserving Trajectory Publication, Int'l Conf. Next Gen. Comput. 2019

Invited Talks:

C3: Top-k Team Synergy Problem, 2022, Hanyang Univ.
Patent: How to cook hot potato, 2021, Yonsei Univ., Hanyang Univ., Korea Univ.,
Team Chemistry Problem, 2020, Kaist, and Chungnam National Univ.
What Graph Algorithms are for, 2019 Seoul National Univ. & KAIST
How to cook hot potatoes: From Ideation to Patent, 2020 Sorae Lib. & Inil High School, etc.
What Graphs are for, 2016 Yonsei Univ., Korea Univ., Hanyang Univ. U. Manitoba, etc.
Patent Ideation Patterns, 2016 CNU, KWNU, JJU, Gacheon Univ., Inha Hospital
Tree algorithms in the complex graphs, 2015, Seoul National Univ.
Graph Theory and Social Network, 2013. 5. SUNY Korea
Network Oriented Ranking for Sub-Graph Extraction, 2012. 5. KyungHee Univ.
Rooted Path Tree for Social Networks, 2012. 4. POSTECH.
Graph Theoretic Solutions for Network Security Issues, 2011.9. ETRI
Ranking Measures for Network Problems, 2011. 8. National Institute of Mathematical Science.
Mobile Ecosystem: An OR/IE perspective, Oct. 2010, Seoul National University.
Top-k Steiner Trees for Subgraph Searching in the Web, July 2010, Kyoto University, Japan.
Optimal Structural Web Navigation with Cohesive Arc Measure, 13. Feb. 2009, RMIT, Australia
RIA: Client Side Internet Applications, 6. 2007., Busan National Univ., Korea
Hierarchical Structure Mining, Feb. 2006, Kyoto Univ., Japan

Paper publications (selected):

- Talking human face generation: A survey. **Expert Syst. Appl.** 219: 119678, 2023
- PatentNet: multi-label classification of patent documents using deep learning based language understanding. **Scientometrics** 127(1): 207-231, 2022
- Top-k team synergy problem: Capturing team synergy based on C3. **Inf. Sci.**, 2022
- Biosignal Sensors and Deep Learning-Based Speech Recognition: **Sensors**, 2021
- Generative adversarial networks and their application to 3D face generation: **Image Vis. Comput.** 2021
- Graph threshold algorithm. **Journal of Supercomputing** 77(9): 2021
- Relevance maximization for high-recall retrieval problem: finding all needles in a haystack. **Journal of Supercomputing**, 2020
- Effective privacy preserving data publishing by vectorization, **Information Sciences**, 2020
- An effective High Recall Retrieval method. **Data Knowl. Eng.** 2019
- G-OPTICS: fast ordering density-based cluster objects using graphics processing units. **Int. J. Web Grid Serv.** 14(3): 273-287, 2018

- Optimized combinatorial clustering for stochastic processes, **CLUSTER COMP.** 2017
- How to measure similarity for multiple categorical data sets? **Multimedia Tools Appl.** 2015.
- Graph based Ranked Answers for Keyword Graph Structure. **New Gener. Comput.** 31(2): 115-134 (2013)
- Searching Steiner trees for web graph query. **Computers & Industrial Engineering**, 2012.
- Retrieving keyworded subgraphs with graph ranking score. **Expert Syst. Appl.** 39(5): 4647-4656 (2012)
- Mobile Web Navigation in Digital Ecosystems Using Rooted Directed Trees. **IEEE TIE** 2011.
- A Fast Divide-and-Conquer Algorithm for Indexing Human Genome Sequences. **IEICE Trans. Inf. Syst.** 94-D(7): 1369-1377 (2011)
- Adaptive Hierarchical Surrogate for Searching Web with Mobile Devices. **IEEE TCE**, 2007.