

# JAEMIN YOO

PhD Candidate @ Seoul National University

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## EDUCATION

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**Seoul National University**

*Mar. 2016 - Present*

*PhD Candidate, Computer Science and Engineering*

Advisor: U Kang

**Seoul National University**

*Mar. 2012 - Feb. 2016*

*Bachelor of Science, Computer Science and Engineering*

## PUBLICATIONS

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- [c10] Jaemin Yoo\*, Junghun Kim\*, Hoyoung Yoon\*, Geonsoo Kim, Changwon Jang, and U Kang. *Accurate Graph-Based PU Learning without Class Prior*.  
**ICDM 2021** (regular paper; top 98/990 = 9.9%; \*equal contribution)
- [c9] Jaemin Yoo, Yejun Soun, Yong-chan Park, and U Kang. *Accurate Multivariate Stock Movement Prediction via Data-Axis Transformer with Multi-Level Contexts*.  
**KDD 2021** (acceptance rate 238/1541 = 15.4%)
- [c8] Jaemin Yoo and Lee Sael. *Gaussian Soft Decision Trees for Interpretable Feature-Based Classification*.  
**PAKDD 2021** (acceptance rate 157/768 = 20.4%)
- [c7] Jaemin Yoo and U Kang. *Attention-Based Autoregression for Accurate and Efficient Multivariate Time Series Forecasting*.  
**SDM 2021** (acceptance rate 85/400 = 21.3%)
- [c6] Jaemin Yoo, U Kang, Mauro Scanagatta, Giorgio Corani, and Marco Zaffalon. *Sampling Subgraphs with Guaranteed Treewidth for Accurate and Efficient Graphical Inference*.  
**WSDM 2020** (acceptance rate 91/615 = 14.8%)
- [c5] Jaemin Yoo, Minyong Cho, Taebum Kim, and U Kang. *Knowledge Extraction with No Observable Data*.  
**NeurIPS 2019** (acceptance rate 1428/6743 = 21.2%)
- [c4] Jaemin Yoo and Lee Sael. *EDiT: Interpreting Ensemble Models via Compact Soft Decision Trees*.  
**ICDM 2019** (acceptance rate 194/1046 = 18.5%)
- [c3] Jaemin Yoo, Hyunsik Jeon, and U Kang. *Belief Propagation Network for Hard Inductive Semi-Supervised Learning*.  
**IJCAI 2019** (acceptance rate 850/4752 = 17.9%)
- [c2] Saehan Jo, Jaemin Yoo, and U Kang. *Fast and Scalable Distributed Loopy Belief Propagation on Real-World Graphs*.  
**WSDM 2018** (acceptance rate 83/514 = 16.3%)
- [j1] Mauro Scanagatta, Giorgio Corani, Marco Zaffalon, Jaemin Yoo, and U Kang. *Efficient Learning of Bounded-Treewidth Bayesian Networks from Complete and Incomplete Data Sets*.  
**International Journal of Approximate Reasoning**, vol. 95, pp. 152–166, 2018

- [c1] Jaemin Yoo, Saehan Jo, and U Kang. *Supervised Belief Propagation: Scalable Supervised Inference on Attributed Networks*.  
**ICDM 2017** (regular paper; top 72/778 = 9.3%)

## AWARDS & SCHOLARSHIPS

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SNU BK21 Outstanding Graduate Student Award . . . . .	Jul. 2021
Best Poster Award at AIIS Retreat 2021 . . . . .	Apr. 2021
SIAM Student Travel Awards (SDM 2021) . . . . .	Apr. 2021
SNU BK21 Star Researcher Award . . . . .	Feb. 2021
Qualcomm Innovation Fellowship Korea . . . . .	Dec. 2020
Yulchon AI Star Award . . . . .	Sep. 2020
Google PhD Fellowship Program (Machine Learning) . . . . .	Sep. 2019
Samsung HumanTech Paper Award (Honorable Mention) . . . . .	Feb. 2019
Google Conference Scholarships (ICDM 2017) . . . . .	Nov. 2017
Paper Award in Scientific and Technical Writing by SNU . . . . .	Jun. 2014
Undergraduate Student Paper Award at KSC 2014 . . . . .	Jun. 2014
SNU BK21 Scholarship . . . . .	Mar. 2019 - Aug. 2020
Lecture & Research Scholarship by SNU . . . . .	Mar. 2016 - Feb. 2019
National Scholarship For Science and Engineering by KOSAF . . . . .	Mar. 2013 - Jun. 2015

## DEVELOPMENT PROJECTS

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Graph-Based Gold Farming Group Detection System (NCSoft) . . . . .	Sep. 2020 - Feb. 2021
Deep Learning-Based Recommender System (Wemakeprice) . . . . .	Feb. 2019 - Dec. 2019
Statistical Learning and Inference Method with PGMs (IDSIA) . . . . .	Jan. 2016 - Dec. 2018
Feature Selection Method for RNN Recommender Systems (SK Telecom) . . . . .	Mar. 2018 - Nov. 2018
Temporal Stock Price Prediction System (eMoney) . . . . .	Aug. 2017 - Feb. 2018
Video Recommender System with Multimodal Data (SK Broadband) . . . . .	Nov. 2016 - Jun. 2017
Distributed Machine Learning Library on Apache Spark (SK Telecom) . . . . .	Mar. 2016 - Jan. 2017

## INVITED TALKS

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KAIST AI Student Colloquium . . . . .	Oct. 2021
SNU AI Summer School 2021 . . . . .	Aug. 2021
SNU AI Institute (AIIS) Retreat 2021 . . . . .	Apr. 2021
NAVER Online Tech Talk . . . . .	Dec. 2020
SNU AI Summer School 2020 . . . . .	Aug. 2020
SNU Hospital . . . . .	Jul. 2020
SNU AI Institute (AIIS) Retreat 2020 . . . . .	Jun. 2020
Kakao Enterprise . . . . .	Jan. 2020
Korea Software Congress 2019 . . . . .	Dec. 2019
SNU - Samsung Research Workshop . . . . .	Oct. 2019
SNU Center for AI (SCAI) Retreat . . . . .	Jul. 2019
Introduction to Data Mining @ SNU CSE . . . . .	Jul. 2019

Samsung Electronics . . . . .	<i>Mar. 2019</i>
Istituto Dalle Molle di Studi sull'Intelligenza Artificiale (IDSIA) . . . . .	<i>Jul. 2018</i>
Korea Software Congress 2017 . . . . .	<i>Dec. 2017</i>
Samsung AI Forum 2017 . . . . .	<i>Oct. 2017</i>

## PROFESIONAL SERVICES

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### PC Member

- SDM (SIAM International Conference on Data Mining) . . . . . *2022*
- AAAI (AAAI Conference on Artificial Intelligence) . . . . . *2021 - 2022*
- BigComp (IEEE International Conference on Big Data and Smart Computing) . . . . . *2021 - 2022*
- KDD (ACM SIGKDD Intl. Conf. on Knowledge Discovery and Data Mining) . . . . . *2021*

### Journal Reviewer

- Pattern Recognition . . . . . *2021*

## TEACHING EXPERIENCE

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### Teaching Assistant (Seoul National University)

- Large Data Analysis (M1522.000900, 002) . . . . . *Fall 2017*
- Introduction to Data Mining (M1522.001400\_001) . . . . . *Spring 2017*
- Data Structures (M1522.001600\_002) . . . . . *Fall 2016*

### Teaching Assistant (Other Organizations)

- Deep Learning, Samsung Electronics . . . . . *Apr. 2018 - Feb. 2019*
- Deep Learning, SNU Fourth Industrial Revolution Academy . . . . . *Oct. 2017 - Dec. 2018*
- Distributed Computing, SNU Big Data Academy . . . . . *Feb. 2017 - Dec. 2017*
- Distributed Computing, SNU Big Camp . . . . . *Aug. 2016 - Feb. 2017*

## PATENTS

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1. Taebum Kim, Jaemin Yoo, U Kang, “Method for Compressing Deep Learning Neural Networks and Apparatus for Performing the Same”, KR-Registration No. 10-2199285 (2020)
2. Jaemin Yoo, U Kang, “Method for Extracting Knowledge from Artificial Neural Network and Apparatus for Performing the Same”, KR-Application No. 10-2019-0174361 (2019)
3. Jaemin Yoo, U Kang, “Apparatus and Method for Classifying Nodes”, KR-Registration No. 10-1924832 (2018)