

Hyunsik Jeon

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EDUCATION

Seoul National University , Seoul, Korea Ph.D., Computer Science and Engineering Advisor: Prof. U Kang	<i>Mar. 2019 - Present</i>
Seoul National University , Seoul, Korea M.Sc., Computer Science and Engineering Thesis: "Context Adaptation for Accurate Recommendation with Collective Matrix Factorization" Advisor: Prof. U Kang	<i>Feb. 2019</i>
Hanyang University , Seoul, Korea B.Sc., Computer Science and Engineering	<i>Feb. 2017</i>

RESEARCH INTERESTS

Recommender Systems

Recommendation for bundle (PLOS ONE'23), news (PAKDD'20, KAIS'21), and action (CIKM'22)
Diversified recommendation (PAKDD'23, PAKDD'23) and explainable recommendation (Arxiv'17)
Utilizing additional information (BigData'19)

Graph Learning

Semi-supervised learning (IJCAI'19) and node-feature estimation (KDD'22)

Transfer Learning

Multi-source domain adaptation (PLOS ONE'21, PLOS ONE'21)

AWARDS AND HONORS

SIGIR Student Travel Grants ACM International Conference on Information and Knowledge Management (CIKM), 2022, Atlanta, USA	<i>Aug. 2022</i>
MIND News Recommendation Competition Award Microsoft Research Second Prize Award (215 teams participated)	<i>Sep. 2020</i>
Best Student Paper Award Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2020, Singapore	<i>May. 2020</i>
HumanTech Paper Award Samsung Electronics Honorable Mention - 4th in CSE	<i>Feb. 2020</i>
BigData Student Travel Grants IEEE International Conference on Big Data (BigData), 2019, Los Angeles, USA	<i>Dec. 2019</i>

WORK EXPERIENCE

Research Intern

Hyperconnect, Seoul, Republic of Korea	<i>July 2020 - Aug. 2020</i>
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PUBLICATIONS

Refereed conferences

- C7. Aggregately Diversified Bundle Recommendation via Popularity Debiasing and Configuration-aware Reranking
Hyunsik Jeon, Jongjin Kim, Jaeri Lee, Jong-eun Lee, and U Kang
Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD**), 2023, Osaka, Japan
Oral Presentation - Acceptance Rate: $143/822 = 17.4\%$
- C6. Diversely Regularized Matrix Factorization for Accurate and Aggregately Diversified Recommendation
Jongjin Kim, Hyunsik Jeon, Jaeri Lee, and U Kang
Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD**), 2023, Osaka, Japan
Oral Presentation - Acceptance Rate: $143/822 = 17.4\%$
- C5. Accurate Action Recommendation for Smart Home via Two-Level Encoders and Commonsense Knowledge
Hyunsik Jeon, Jongjin Kim, Hoyoung Yoon, Jaeri Lee, and U Kang
ACM International Conference on Information and Knowledge Management (**CIKM**), 2022, Atlanta, USA
Oral Presentation - Acceptance Rate: $274/1175 = 23.2\%$
- C4. Accurate Node Feature Estimation with Structured Variational Graph Autoencoder
Jaemin Yoo, Hyunsik Jeon, Jinhong Jung, and U Kang
ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD**), 2022, Washington DC, USA
Oral Presentation - Acceptance Rate: $254/1695 = 15.0\%$
- C3. Accurate News Recommendation Coalescing Personal and Global Temporal Preferences
Bonhun Koo, Hyunsik Jeon, and U Kang
Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD**), 2020, Singapore
Oral Presentation - Acceptance Rate: $135/628 = 21.5\%$
Best Student Paper Award
- C2. Data Context Adaptation for Accurate Recommendation with Additional Information
Hyunsik Jeon, Bonhun Koo, and U Kang
IEEE International Conference on Big Data (**BigData**), 2019, Los Angeles, USA
Oral Presentation - Acceptance Rate: $106/550 = 19.3\%$
Samsung HumanTech Paper Award
- C1. Belief Propagation Network for Hard Inductive Semi-supervised Learning
Jaemin Yoo, Hyunsik Jeon, and U Kang
International Joint Conference on Artificial Intelligence (**IJCAI**), 2019, Macao, China
Oral Presentation - Acceptance Rate: $850/4752 = 17.9\%$

Refereed journals

- J4. Accurate Bundle Matching and Generation via Multitask Learning with Partially Shared Parameters
Hyunsik Jeon, Jun-Gi Jang, Taehun Kim, and U Kang
PLOS ONE, 2023
- J3. PGT: News Recommendation Coalescing Personal and Global Temporal Preferences
Bonhun Koo, Hyunsik Jeon, and U Kang
Knowledge and Information Systems (**KAIS**), 2021
- J2. Multi-EPL: Accurate Multi-Source Domain Adaptation
Seongmin Lee, Hyunsik Jeon, and U Kang
PLOS ONE, 2021
- J1. Unsupervised Multi-Source Domain Adaptation with No Observable Source Data
Hyunsik Jeon, Seongmin Lee, and U Kang
PLOS ONE, 2021

Preprints

- A1. UniWalk: Explainable and Accurate Recommendation for Rating and Network Data
Haekyu Park, Hyunsik Jeon, Junghwan Kim, Beunguk Ahn, and U Kang
arXiv:1710.07134, 2017

PATENTS

Korea

- P6. Apparatus and Method for Recommending Bundled Items
U Kang, Hyunsik Jeon, Jongjin Kim, Jaeri Lee, and Jong-eun Lee (filed on Nov. 2022)
- P5. Method and Apparatus for Recommending Items Based on Diversely Regularized Matrix Factorization
U Kang, Jongjin Kim, Hyunsik Jeon, and Jaeri Lee (filed on Nov. 2022)
- P4. Electronic Device and Computer Readable Storage Medium for Control Recommendation
U Kang, Hyunsik Jeon, Jongjin Kim, Hoyoung Yoon, Jaeri Lee, Hyunju Seo, Sanghee Kim, and Inchul Hwang (filed on Aug. 2022)
- P3. Apparatus and Method for Predicting Feature of Node
U Kang, Jaemin Yoo, Hyunsik Jeon, Jinhong Jung (filed on Dec. 2021)
- P2. Apparatus and Method for Unsupervised Domain Adaptation
U Kang, Hyunsik Jeon, and Seongmin Lee (filed on Oct. 2021)
- P1. Explainable and Accurate Recommender Method and System Using Social Network Information and Rating Information
U Kang, Haekyu Park, Hyunsik Jeon, and Junghwan Kim (filed on Nov. 2017)

PROFESSIONAL SERVICES

Program Committee

IEEE International Conference on Big Data and Smart Computing (BigComp) *2021 - 2023*

Reviewer

IEEE International Conference on Big Data and Smart Computing (BigComp) *2020*

ACM International Conference on Information Management (CIKM) *2018 - 2019*

IEEE International Conference on Data Mining (ICDM) *2019*

International Conference on Learning Representations (ICLR) *2021*

ACM SIGKDD Conference of Knowledge Discovery and Data Mining (KDD) *2019 - 2023*

Neural Information Processing Systems (NeurIPS) *2021 - 2023*

The Web Conference (formerly known as WWW) *2019 - 2021*

ACM International Conference on Web Search and Data Mining (WSDM) *2019*

INVITED TALKS

Invited Conference Speaker

Korea Software Congress (KSC) 2022, KIISE *Dec. 21, 2022*

Korea Software Congress (KSC) 2019, KIISE *Dec. 19, 2019*

TEACHING EXPERIENCE

Seoul National University

- T.A., Undergraduate Research Opportunities Program (UROP) @ SNU *2017, 2020, 2022*
- T.A., M2177.004900: Theory and Lab of IoT, AI, and Big Data @ SNU *Spring 2019*
- T.A., 4190.773: Optimization for Machine Learning (Topics in Artificial Intelligence) @ SNU *Spring 2018*
- T.A., M1522.000900: Data Structure @ SNU *Fall 2017*

Other Organizations

- T.A., Advanced DS @ LG *2023*

- **T.A.**, AI Master @ Hyundai Motors 2022
- **T.A.**, AI Lectures @ KDB 2022 - 2023
- **T.A.**, SK-Univ @ SK 2020
- **T.A.**, DS Advanced Projects @ LG 2020
- **T.A.**, DxP (1st) @ Hana Financial Group 2019
- **T.A.**, AI Action Learning @ Samsung Electronics 2019
- **T.A.**, NPEX (1st - 2nd) @ Samsung Electronics 2019 - 2020
- **T.A.**, DS² (3rd - 9th) @ Samsung Electronics 2019 - 2022

PROJECTS

Elancer, Job Matching	2023
Samsung C-Lab, Plan Recommender Systems	2023
JungHun Foundation, Recommender Systems Under Constraints	2022
Samsung, Effective Expression and Compression of Knowledge-Base for IoT Devices	2022
Posco-ICT, Recommender Systems for Learning Platform	2022
JungHun Foundation, Recommender Systems Under Constraints	2021
Samsung, Data Driven Analysis and Reasoning for Device Control	2021
LINA, Prediction and Control of Insurance Cancellation	2020
Wemakeprice, Recommender Systems Based on Deep Learning	2019
LG, Failure Detection for Compressor in Refrigerator	2018
LG, Optimization of Sputtering for Uniform Film Formation	2018
SKT, Feature Selection for RNN-based Recommender Systems	2018
SKT, Recommender Systems for Oksusu Videos	2017

GRADUATE COURSEWORK

4190.676: Artificial Neural Networks @ SNU	Fall 2019
M2177.003000: Advanced Data Mining @ SNU	Fall 2019
M1522.001600: Reinforcement Learning (Topics in Big Data Analytics) @ SNU	Spring 2019
4190.681A: Genetic Algorithm @ SNU	Spring 2019
4190.771: ML Algorithms in Bioinformatics (Topics in Algorithms) @ SNU	Spring 2018
430.711A: Introduction to Computer Vision @ SNU	Spring 2018
M1522.000500: Information Visualization and Visual Analytics @ SNU	Fall 2017
M1522.001600: Advanced Deep Learning (Topics in Big Data Analytics) @ SNU	Fall 2017
4190.564: Advanced Database @ SNU	Spring 2017
M1522.001600: Deep Learning (Topics in Big Data Analytics) @ SNU	Spring 2017