

Hyunsik Jeon

Postdoctoral Researcher ◇ CSE, UC San Diego

Room 4202 ◇ CSE Department

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RESEARCH INTERESTS

I am dedicated to advancing **recommender systems** by leveraging cutting-edge AI techniques, emphasizing critical challenges beyond mere accuracy – such as diversity, calibration, and fairness.

Currently, my research focuses on developing effective and practical **conversational recommender systems (CRS)**. Specifically, I am creating visually-aware CRS using large language and vision models and investigating the fairness of LLM-based CRS to deliver equitable and precise recommendations across diverse user groups.

RESEARCH EXPERIENCE

University of California San Diego, CA, USA

Sep. 2023 - Present

Postdoctoral Researcher, Computer Science & Engineering

Advisor: [Prof. Julian McAuley](#)

Hyperconnect, Seoul, South Korea

Jul. 2020 - Aug. 2020

Research Intern, Machine Learning Team

EDUCATION

Seoul National University, Seoul, South Korea

Aug. 2023

Ph.D., Computer Science & Engineering

Thesis: “Modeling Bundle Recommendation with Personalized Pattern Analysis”

Distinguished Ph.D. Dissertation Award

Advisor: [Prof. U Kang](#)

Seoul National University, Seoul, South Korea

Feb. 2019

M.Sc., Computer Science & Engineering

Thesis: “Context Adaptation for Accurate Recommendation with Collective Matrix Factorization”

Advisor: [Prof. U Kang](#)

Hanyang University, Seoul, South Korea

Feb. 2017

B.Sc., Computer Science & Engineering

AWARDS AND HONORS

Distinguished Ph.D. Dissertation Award

Aug. 2023

Dept. of CSE at Seoul National University

Sejong Science Fellowship Grants (Overseas Training Track)

May. 2023

Funding for 2 years of Postdoctoral Research, National Research Foundation of Korea

Topic: “Accurate, Robust, and Interactive Recommender Systems for Enhancing User Experience”

SIGIR Student Travel Grants

Aug. 2022

ACM International Conference on Information and Knowledge Management (CIKM), 2022, Atlanta, USA

MIND News Recommendation Competition Award

Sep. 2020

Microsoft Research

Second Prize Award (215 teams participated)

Best Student Paper Award

May. 2020

Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2020, Singapore

HumanTech Paper Award

Feb. 2020

Samsung Electronics

Honorable Mention - 4th in CSE

PUBLICATIONS

Preprints

- A1. Imagery as Inquiry: Exploring A Multimodal Dataset for Conversational Recommendation
Se-eun Yoon, Hyunsik Jeon, and Julian McAuley
[arXiv:2405.14142](#)

Refereed conferences (* denotes equal contribution)

- C10. Neighborhood-Based Collaborative Filtering for Conversational Recommendation
Zhouhang Xie*, Junda Wu*, Hyunsik Jeon*, Zhankui He, Harald Steck, Rahul Jha, Dawen Liang, Nathan Kallus, and Julian Mcauley
ACM Conference on Recommender Systems (**RecSys**) - Short Paper, 2024, Bari, Italy
- C9. Calibration-Disentangled Learning and Relevance-Prioritized Reranking for Calibrated Sequential Recommendation
Hyunsik Jeon, Se-eun Yoon, and Julian McAuley
ACM International Conference on Information and Knowledge Management (**CIKM**), 2024, Boise, USA
Oral Presentation - Acceptance Rate: $347/1496 \approx 23.2\%$
- C8. Cold-start Bundle Recommendation via Popularity-based Coalescence and Curriculum Heating
Hyunsik Jeon, Jong-eun Lee, Jeongin Yun, and U Kang
ACM The Web Conference (**WWW**), 2024, Singapore
Oral Presentation: $189/2008 \approx 9.4\%$ - Acceptance Rate: $405/2008 \approx 20.2\%$
- 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: $143/822 \approx 17.4\%$
- 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: $143/822 \approx 17.4\%$
- 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: $274/1175 \approx 23.2\%$
- 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: $254/1695 \approx 15.0\%$
- 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: $135/628 \approx 21.5\%$
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: $106/550 \approx 19.3\%$
Samsung HumanTech Paper Award
- C1. Belief Propagation Network for Hard Inductive Semi-supervised Learning
Jaemin Yoo, Hyunsik Jeon, and U Kang

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

Others

- O1. 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
Hyunsik Jeon, Jongjin Kim, Jaeri Lee, Jong-eun Lee, and U Kang (filed on Nov. 2022)
- P5. Method and Apparatus for Recommending Items Based on Diversely Regularized Matrix Factorization
Jongjin Kim, Hyunsik Jeon, Jaeri Lee, and U Kang (filed on Nov. 2022)
- P4. Electronic Device and Computer Readable Storage Medium for Control Recommendation
Hyunsik Jeon, Jongjin Kim, Hoyoung Yoon, Jaeri Lee, Hyunju Seo, Sanghee Kim, Inchul Hwang, and U Kang (filed on Aug. 2022)
- P3. Apparatus and Method for Predicting Feature of Node
Jaemin Yoo, Hyunsik Jeon, Jinhong Jung, and U Kang (filed on Dec. 2021)
- P2. Apparatus and Method for Unsupervised Domain Adaptation
Hyunsik Jeon, Seongmin Lee, and U Kang (filed on Oct. 2021)
- P1. Explainable and Accurate Recommender Method and System Using Social Network Information and Rating Information
Haekyu Park, Hyunsik Jeon, and Junghwan Kim, and U Kang (filed on Nov. 2017)

PROFESSIONAL SERVICES

Program Committee & Reviewer

IEEE International Conference on Big Data and Smart Computing (BigComp)	2020 - 2023
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 - 2025
Neural Information Processing Systems (NeurIPS)	2021 - 2023
SIAM International Conference on Data Mining (SDM)	2024
The Web Conference (formerly WWW)	2019 - 2021, 2024 - 2025
ACM International Conference on Web Search and Data Mining (WSDM)	2019
Frontiers in Big Data	2023 - 2024

INVITED TALKS

Korea Software Congress (KSC) 2022, KIISE

Dec. 21, 2022

Korea Software Congress (KSC) 2019, KIISE

Dec. 19, 2019

Data Mining Lab, Korea Advanced Institute of Science & Technology (KAIST) AI

Jul. 4, 2023

REFERENCES

[Prof. Julian McAuley](#) (Postdoc advisor) - University of California, San Diego

jmcauley@ucsd.edu

[Prof. U Kang](#) (PhD advisor) - Seoul National University

ukang@snu.ac.kr