

# Hyunsik Jeon

Postdoctoral Researcher ◊ CSE, UC San Diego

Room 4202 ◊ CSE Department

Email: [hyjeon@ucsd.edu](mailto:hyjeon@ucsd.edu) ◊ Homepage: <https://jeon185.github.io>

## RESEARCH INTERESTS

---

My research focuses on advancing **recommender systems (RecSys)** through the application of cutting-edge AI techniques. My previous and ongoing work can be summarized as follows:

- **Conversational RecSys.** Researched practical conversational recommendation [A1, C10] and am currently developing visually-aware conversational recommender systems using large vision-language models to enhance multimodal personalization.
- **Sequential RecSys.** Developed effective sequential recommender systems [C9, C5, C3, J3] and am currently enhancing Transformer-based models to improve their effectiveness in sequential recommendation tasks.
- **RecSys Beyond Accuracy.** Extended recommender systems beyond mere accuracy by targeting diversity, calibration, robustness, and other practical metrics [C9, C8, C7, C6, C4, C1].

## RESEARCH EXPERIENCE

---

**University of California San Diego**, CA, USA

Postdoctoral Researcher, Computer Science & Engineering

Advisor: [Prof. Julian McAuley](#)

*Sep. 2023 - Current*

**Hyperconnect**, Seoul, South Korea

Research Intern, Machine Learning Team

*Jul. 2020 - Aug. 2020*

## EDUCATION

---

**Seoul National University**, Seoul, South Korea

Ph.D., Computer Science & Engineering

Thesis: “Modeling Bundle Recommendation with Personalized Pattern Analysis”

**Distinguished Ph.D. Dissertation Award**

Advisor: [Prof. U Kang](#)

*Aug. 2023*

**Seoul National University**, Seoul, South Korea

M.Sc., Computer Science & Engineering

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

Advisor: [Prof. U Kang](#)

*Feb. 2019*

**Hanyang University**, Seoul, South Korea

B.Sc., Computer Science & Engineering

*Feb. 2017*

## AWARDS AND GRANTS

---

**API Credit for Research Support**

OpenAI

Awarded 1,000 USD API Credits for Research on Conversational Recommendation

*Jan. 2025*

**Distinguished Ph.D. Dissertation Award**

Dept. of CSE at Seoul National University

*Aug. 2023*

**Sejong Science Fellowship Grants (Overseas Training Track)**

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

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

*May. 2023*

**SIGIR Student Travel Grants**

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

*Aug. 2022*

## 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

## BigData Student Travel Grants

Dec. 2019

IEEE International Conference on Big Data (BigData), 2019, Los Angeles, USA

## 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. 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:  $347/1496 \approx 23.2\%$
- C9. 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
- 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

International Joint Conference on Artificial Intelligence (**IJCAI**), 2019, Macao, China

*Oral Presentation* - Acceptance Rate:  $850/4752 \approx 17.9\%$

**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

**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**

---

## Session Chair

ACM International Conference on Information Management (CIKM) 2024

## 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 - 2025  
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

## PhD Symposium Mentorship

ACM International Conference on Information Management (CIKM) 2024

## INVITED TALKS

---

Data Intelligence and Learning Lab, Sungkyunkwan University (SKKU) Nov. 27, 2024  
Data Mining Lab, Korea Advanced Institute of Science & Technology (KAIST) AI Jul. 4, 2023  
Korea Software Congress (KSC) 2022, KIISE Dec. 21, 2022  
Korea Software Congress (KSC) 2019, KIISE Dec. 19, 2019

## 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