Wonbin Kweon

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I am a postdoctoral researcher at the University of Illinois Urbana-Champaign (UIUC).
I received my Ph.D. from POSTECH, advised by Prof. Hwanjo Yu, and subsequently worked as a postdoctoral researcher at POSTECH Institute of Artificial Intelligence.
My research interests include Information Retrieval, Large Language Models, and Trustworthy AI.

Experience

University of Illinois at Urbana-Champaign (UIUC), USA	Apr 2025 – Present

Postdoctoral Researcher, Siebel School of Computing and Data Science
Advisor: Prof. Jiawei Han

Pohang University of Science and Technology (POSTECH), South Korea	Mar 2024 – Mar 2025

Postdoctoral Researcher, Institute of Artificial Intelligence
Advisor: Prof. Hwanjo Yu

Education

Pohang University of Science and Technology (POSTECH), South Korea	Feb 2019 – Feb 2024

Ph.D. in Convergence IT Engineering
Advisor: Prof. Hwanjo Yu

Pohang University of Science and Technology (POSTECH), South Korea	Mar 2015 – Feb 2019

B.S. in Industrial and Management Engineering
Ranked 1st in the Department

GyeongNam Science High School, South Korea	Mar 2013 – Feb 2015

Early Graduation

Publications

[C14] Controlling Diversity at Inference: Guiding Diffusion Recommender Models with Targeted Category Preferences
Gwangseok Han*, <u>Wonbin Kweon</u>*, Minsoo Kim, Hwanjo Yu (*equal contribution)
KDD 2025

[C13] Uncertainty Quantification and Decomposition for LLM-based Recommendation
<u>Wonbin Kweon</u>, Sanghwan Jang, SeongKu Kang, Hwanjo Yu
WWW 2025

[C12] Improving Scientific Document Retrieval with Concept Coverage-based Query Set Generation
SeongKu Kang, Bowen Jin, <u>Wonbin Kweon</u>, Yu Zhang, Dongha Lee, Jiawei Han, Hwanjo Yu
WSDM 2025

[C11] Continual Collaborative Distillation for Recommender System
Gyuseok Lee*, SeongKu Kang*, <u>Wonbin Kweon</u>, Hwanjo Yu
KDD 2024

[C10] Rectifying Demonstration Shortcut in In-Context Learning
Joonwon Jang, Sanghwan Jang, <u>Wonbin Kweon</u>, Minjin Jeon, Hwanjo Yu
NAACL 2024

[J3] Unbiased, Effective, and Efficient Distillation from Heterogeneous Models for Recommender Systems
SeongKu Kang, <u>Wonbin Kweon</u>, Dongha Lee, Jianxun Lian, Xing Xie, Hwanjo Yu
ACM Transactions on Recommender Systems, 2024

[C9] Doubly Calibrated Estimator for Recommendation on Data Missing Not At Random
<u>Wonbin Kweon</u>, Hwanjo Yu
WWW 2024, *oral presentation*

[C8] Top-Personalized-K Recommendation
<u>Wonbin Kweon</u>, SeongKu Kang, Sanghwan Jang, Hwanjo Yu
WWW 2024

[C7] Distillation from Heterogeneous Models for Top-K Recommendation
SeongKu Kang, <u>Wonbin Kweon</u>, Dongha Lee, Jianxun Lian, Xing Xie, Hwanjo Yu
WWW 2023

[C6] Consensus Learning from Heterogeneous Objectives for One-Class Collaborative Filtering
SeongKu Kang, Dongha Lee, <u>Wonbin Kweon</u>, Junyoung Hwang, Hwanjo Yu
WWW 2022

[C5] Obtaining Calibrated Probabilities with Personalized Ranking Models
<u>Wonbin Kweon</u>, SeongKu Kang, Hwanjo Yu
AAAI 2022, *oral presentation* (top-3% among 9,020 papers)

[J2] Personalized Distillation for Recommender System
SeongKu Kang, Dongha Lee, <u>Wonbin Kweon</u>, Hwanjo Yu
Knowledge-Based Systems, 2022 (IF: 8.8)

[C4] Topology Distillation for Recommender System
SeongKu Kang, Junyoung Hwang, <u>Wonbin Kweon</u>, Hwanjo Yu
KDD 2021

[C3] Bidirectional Distillation for Top-K Recommender System
<u>Wonbin Kweon</u>, SeongKu Kang, Hwanjo Yu
WWW 2021, *oral presentation*

[J1] Item-side Ranking Regularized Distillation for Recommender System
SeongKu Kang, Junyoung Hwang, <u>Wonbin Kweon</u>, Hwanjo Yu
Information Sciences, 2021 (IF: 8.2)

[C2] DE-RRD: A Knowledge Distillation Framework for Recommender System
SeongKu Kang, Junyoung Hwang, <u>Wonbin Kweon</u>, Hwanjo Yu
CIKM 2020

[C1] Deep Rating Elicitation for New Users in Collaborative Filtering
<u>Wonbin Kweon</u>, SeongKu Kang, Junyoung Hwang, Hwanjo Yu
WWW 2020, *oral presentation*

Academic Services

Program Committee member & Reviewer

KDD (ACM SIGKDD Conference on Knowledge Discovery & Data Mining)	2023 – 2025
WWW (ACM The Web Conference)	2024 – 2025
AAAI (Annual AAAI Conference on Artificial Intelligence)	2023 – 2025
ICLR (International Conference on Learning Representations)	2024 – 2025
ICML (International Conference on Machine Learning)	2024 - 2025

Honors & Awards

POSTECH PIURI Postdoc Fellowship (50,000 USD)	2025
Fourth Prize, The 3rd POSTECH Research Award	2023
AAAI Student Travel Award	2022
Third Prize, Kakao Melon Music Playlist Continuation Competition	2020
WWW Student Travel Award	2020
Kwanjeong Educational Foundation Scholarship (15,000 USD)	2017 - 2019
Woori Bank Exchange Student Scholarship for TU Munich in Germany (4,000 USD)	2018
POSTECH Exchange Student Scholarship for TU Munich in Germany (2,000 USD)	2018
POSTECH Admission Scholarship	2015
Hanseong Sonjaehan Foundation Scholarship (4,000 USD)	2014

Talks & Presentations

WSDM (Hannover, Germany), oral presentation [C12]	2025
WWW (Singapore), oral presentation [C9]	2024
AAAI (Virtual, Vancouver), oral presentation [C5]	2022
UberAI (Virtual, San Francisco), invited by Joseph Wang [C5]	2022
Naver-POSTECH AI Day (Pohang, South Korea) [C5]	2022
WWW (Virtual, Ljubljana), oral presentation [C3]	2021
WWW (Virtual, Taipei), oral presentation [C1]	2020

Patents

Method and Apparatus of Knowledge Distillation from Heterogeneous Models for Reducing Prediction Time of Recommender Systems, South Korea	2023
Consensus Learning from Heterogeneous Objectives for One-Class Collaborative Filtering, South Korea	2022

Teachings

Predictive Analytics Modelling (DS30), TA, Hyundai Motors	2023
Artificial Intelligence (DS20), TA, Hyundai Motors	2022
Artificial Intelligence, TA, SK Hynix	2020
Artificial Intelligence, TA, SK Innovation	2020
Introduction to Data Analysis (CSED226), TA, POSTECH	2020
Trends on Industrial AI (CSED703H), TA, POSTECH	2019