

HYUNSIK YOO

🖥️ homepage ✉️ hy40@illinois.edu

INTERESTS

Machine Learning, Recommender Systems, Personalized LLMs, Information Retrieval, Continual Learning, User-inclusive Systems, Trustworthiness

EDUCATION

University of Illinois, Urbana-Champaign

Ph.D. in Computer Science – Advisor: Prof. Hanghang Tong

(GPA: 3.92/4.00)

Urbana, IL, U.S.

Aug. 2022–Dec. 2026

Hanyang University

M.S. in Computer Science – Advisor: Prof. Sang-Wook Kim

B.S. in Computer Science & Engineering (GPA: 4.12/4.50)

(Includes 21 months of military service in Republic of Korea Army)

Seoul, South Korea

Mar. 2020–Feb. 2022

Mar. 2013–Feb. 2020

POSITIONS

Airbnb

Machine Learning Engineer Intern

Project: “Evaluation Framework for Conversational Travel Agents”

San Francisco, CA, U.S.

June 2026–Aug. 2026

Amazon

Applied Scientist Intern

Projects:

- “Language-Steerable LLM-based Generative Retrieval” (Sept.–Dec. 2026)
- “Continual Learning of Generative Recommender Systems” (May–Aug. 2025)
- “Leveraging Temporal Context for Consumer Propensity Prediction” (May–Aug. 2024)

Seattle, WA, U.S.

Summers 2024–2025, Fall 2026

ECIT, Queen’s University Belfast

Research Intern

Project: “Random Forest for Big Data”

Belfast, Northern Ireland, U.K.

Sept. 2018–Dec. 2018

TUTORIALS

- [1] Cold-start Recommendation
Yuanchen Bei, Weizhi Zhang, Hyunsik Yoo, Dongqi Fu, Yinglong Xia, Hong Li, Philip S. Yu, and Hanghang Tong
IEEE BigData Tutorial 2026
- [2] Continual Recommender Systems: A Focus on LLMs and Evolving Trends
Seunghan Lee, Seunghyun Baek, Dojun Hwang, Hyunsik Yoo, and SeongKu Kang
DASFAA Tutorial 2026
- [3] Continual Recommender Systems
Hyunsik Yoo, SeongKu Kang, and Hanghang Tong
ACM CIKM Tutorial 2025

PUBLICATIONS

- [1] PerCept: Personalization in Concept Space for Multimodal Recommendation
Donghyuk Kang, Seunghan Lee, Dojun Hwang, Hyunsik Yoo, SeongKu Kang
Under review
- [2] ContextRank: Enhancing Scientific Document Retrieval with Context-Enriched Relations
Wonbin Kweon, Xueqiang Xu, Runchu Tian, Chih-Hsuan Wei, ZhiZheng Wang, Hyunsik Yoo,
Gyuseok Lee, SeongKu Kang, Zhiyong Lu, Jiawei Han, Hwanjo Yu
Under review
- [3] Rethinking Cold-Start Item Recommendation
Yuanchen Bei, Hyunsik Yoo, Tianxin Wei, Xuying Ning, Dongqi Fu, Yinglong Xia, Hong Li, Jingrui
He, Hanghang Tong
Under review
- [4] LODGE: A Conversational Travel Agent Benchmark with Grounded Goals and Controllable Difficulty
Wendy Wei*, Hyunsik Yoo*, Selen Uguroglu, Chun How Tan, Hanghang Tong, Yashar Mehdad,
Gokhan Tur, Huiji Gao, Stephanie Moyerman
Under Review
- [5] Instruction-Level Personalization for Prompt-Based Preference Prediction
Hyunsik Yoo, Yuanchen Bei, Ting-Wei Li, Ruizhong Qiu, Xuying Ning, Wonbin Kweon, SeongKu
Kang, and Hanghang Tong
Under review
- [6] SCOUT: Coupling-Free Bounds for Trillion-Scale Top-k Retrieval in Sparse Tensor Factorization
Jun-Gi Jang, Hyunsik Yoo, Ruizhong Qiu, Yinglong Xia, and Hanghang Tong
ACM SIGMOD 2027
- [7] Beyond Observed Auxiliary Relations: Environment-Conditioned Modeling for Multi-Behavior Rec-
ommendation
Seunghan Lee, Hyunsik Yoo, Jian Kang, Susik Yoon and Seongku Kang
ACM CIKM 2026
- [8] TRACER: Balancing Stability-Plasticity-Cognitvity Trilemma for LLM Enhanced Continual Rec-
ommendation
WooJoo Kim, Hyunsik Yoo, Junyoung Kim, Jaehyung Lim, SeongKu Kang, Hwanjo Yu
ACM CIKM 2026
- [9] Mixture of Sequence: Theme-Aware Mixture-of-Experts for Long-Sequence Recommendation
Xiao Lin, Zhicheng Tang, Weilin Cong, Mengyue Hang, Kai Wang, Yajuan Wang, Zhichen Zeng,
Ting-Wei Li, Hyunsik Yoo, Zhining Liu, Xuying Ning, Ruizhong Qiu, Wen-Yen Chen, Shuo Chang,
Rong Jin, Huayu Li and Hanghang Tong
WWW 2026
- [10] Reinforcement Routing for Mixtures of LoRAs in Parameter-Efficient LLM Finetuning
Ruizhong Qiu, Hanqing Zeng, Yinglong Xia, Yiwen Meng, Ren Chen, Jiarui Feng, Dongqi Fu, Qifan
Wang, Jiayi Liu, Jun Xiao, Xiangjun Fan, Benyu Zhang, Hong Li, Zhining Liu, Hyunsik Yoo, Zhichen
Zeng, Tianxin Wei, and Hanghang Tong
COLM 2026
- [11] Continual Low-Rank Adapters for LLM-based Generative Recommender Systems
Hyunsik Yoo, Ting-Wei Li, SeongKu Kang, Zhining Liu, Charlie Xu, Qilin Qi, and Hanghang Tong
ICLR 2026
- [12] Capturing User Interests from Data Streams for Continual Sequential Recommendation
Gyuseok Lee, Hyunsik Yoo, Junyoung Hwang, SeongKu Kang, and Hwanjo Yu
ACM WSDM 2026

- [13] Embracing Plasticity: Balancing Stability and Plasticity in Continual Recommender Systems
Hyunsik Yoo, SeongKu Kang, Ruizhong Qiu, Charlie Xu, Fei Wang, and Hanghang Tong
ACM SIGIR 2025
- [14] Generalizable Recommender System During Temporal Popularity Distribution Shifts
Hyunsik Yoo, Ruizhong Qiu, Charlie Xu, Fei Wang, and Hanghang Tong
ACM KDD 2025
- [15] Class-Imbalanced Graph Learning without Class Rebalancing
Zhining Liu, Ruizhong Qiu, Zhichen Zeng, Hyunsik Yoo, David Zhou, Zhe Xu, Yada Zhu, Kommy Weldemariam, Jingrui He, and Hanghang Tong
ICML 2024
- [16] Ensuring User-side Fairness in Dynamic Recommender Systems
Hyunsik Yoo, Zhichen Zeng, Jian Kang, Ruizhong Qiu, David Zhou, Zhining Liu, Fei Wang, Charlie Xu, Eunice Chan, and Hanghang Tong
WWW 2024 (*Oral presentation*)
- [17] Disentangling Degree-related Biases and Interest for Out-of-Distribution Generalized Directed Network Embedding
Hyunsik Yoo, Yeon-Chang Lee, Kijung Shin, and Sang-Wook Kim
WWW 2023 (*Oral presentation*)
- [18] Directed Network Embedding with Virtual Negative Edges
Hyunsik Yoo*, Yeon-Chang Lee*, Kijung Shin, and Sang-Wook Kim
ACM WSDM 2022

HONORS & AWARDS

- Top Reviewer in NeurIPS 2026 2026
- Excellent Reviewer in KDD 2025 Research Track 2025
- KDD 2025 NSF Student Travel Award 2025
- SIGIR 2025 NSF Student Travel Award 2025
- Summa Cum Laude Graduation Honors, Hanyang Univ. Feb. 2020
- Academic Excellence Award (Top 3% in CS), Hanyang Univ. Spring 2017, Spring 2018
- Excellent Mentoring Team Award, Hanyang Univ. Spring 2017

TEACHING

Teaching Assistant

- UIUC CS412 Introduction to Data Mining Fall 2025
- UIUC CS412 Introduction to Data Mining Fall 2023
- Hanyang Univ. CUL1138 Artificial Intelligence and Machine Learning Spring 2021

Tutor

- Hanyang Univ. Python training for high school students (student volunteer) Spring 2019

SERVICES

Program Committee / Reviewer

- International Conference on Learning Representations (ICLR) 2027
- ARR October cycle 2026
- COLM LLA workshop 2026
- ARR May cycle 2026
- Conference on Neural Information Processing Systems (NeurIPS) 2026

- International Conference on Learning Representations (ICLR)	2026
- ACM Conference on Knowledge Discovery and Data Mining (KDD) V1	2026
- Transactions on Intelligent Systems and Technology (TIST)	2025
- ACM Conference on Knowledge Discovery and Data Mining (KDD) V2	2025
- Conference on Neural Information Processing Systems (NeurIPS)	2025
- The Web Conference (WWW) - Companion	2025
- ACM Conference on Knowledge Discovery and Data Mining (KDD) V1	2025
- Conference on Artificial Intelligence (AAAI)	2025
- IEEE International Conference on Data Science and Advanced Analytics (DSAA)	2024
- Conference on Neural Information Processing Systems (NeurIPS)	2024
- ACM Conference on Knowledge Discovery and Data Mining (KDD)	2024
- Conference on Artificial Intelligence (AAAI)	2024
- ACM International Conference on Information and Knowledge Management (CIKM)	2023