

# SEONGKU KANG

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## EDUCATION

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**POSTECH**, Pohang, South Korea Mar 2018 - Present

- Ph.D. in Computer Science and Engineering
  - Thesis: Knowledge Distillation Approaches for Accurate and Efficient Recommender System
  - Advisor: [Prof. Hwanjo Yu](#)
  - Focus: Model compression, Knowledge distillation, Recommender system

**Nanyang Technological University**, Singapore Jul 2016 - May 2017

- B.S. in Computer Science and Engineering
  - Exchange Student

**Hanyang University**, Seoul, South Korea Mar 2012 - Feb 2018

- B.S. in Computer Science and Engineering
  - Cumulative GPA: 4.43/4.50 (ranked 1st in CSE Dept.).

## EXPERIENCE

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**Microsoft Research**, Beijing, China May 2022 - Present

- Research intern in Social Computing group
  - Focus: Information retrieval, Retrieval efficiency, Unbiased learning
  - Mentor: [Dr. Xing Xie](#), [Dr. Jianxun Lian](#)

## PUBLICATIONS

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### CONFERENCES

- C14 Learning Topology-Specific Experts for Molecular Property Prediction  
Suyeon Kim, Dongha Lee, **SeongKu Kang**, Seonghyeon Lee, Hwanjo Yu  
AAAI Conference on Artificial Intelligence (**AAAI 2023**)
- C13 Consensus Learning from Heterogeneous Objectives for One-Class Collaborative Filtering  
**SeongKu Kang**, Dongha Lee, Wonbin Kweon, Junyoung Hwang, Hwanjo Yu  
ACM International World-Wide Web Conference (**WWW 2022**)
- C12 TaxoCom: Topic Taxonomy Completion with Hierarchical Discovery of Novel Topic Clusters  
Dongha Lee, Jiaming Shen, **SeongKu Kang**, Susik Yoon, Jiawei Han, Hwanjo Yu  
ACM International World-Wide Web Conference (**WWW 2022**)
- C11 Obtaining Calibrated Probabilities with Personalized Ranking Models  
Wonbin Kweon, **SeongKu Kang**, Hwanjo Yu  
AAAI Conference on Artificial Intelligence (**AAAI 2022, oral presentation**)
- C10 Topology Distillation for Recommender System  
**SeongKu Kang**, Junyoung Hwang, Wonbin Kweon, Hwanjo Yu  
ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD 2021**)
- C9 Bootstrapping User and Item Representations for One-Class Collaborative Filtering  
Dongha Lee, **SeongKu Kang**, Hyunjun Ju, Chanyoung Park, Hwanjo Yu  
ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR 2021**)

- C8 Unsupervised Proxy Selection for Session-based Recommender Systems  
Junsu Cho, **SeongKu Kang**, Dongmin Hyun, Hwanjo Yu  
ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR 2021**)
- C7 Learning Heterogeneous Temporal Patterns of User Preference for Timely Recommendation  
Junsu Cho, Dongmin Hyun, **SeongKu Kang**, Hwanjo Yu  
ACM International World-Wide Web Conference (**WWW 2021**)
- C6 Bidirectional Distillation for Top-K Recommender System  
Wonbin Kweon, **SeongKu Kang**, Hwanjo Yu  
ACM International World-Wide Web Conference (**WWW 2021**)
- C5 DE-RRD: A Knowledge Distillation Framework for Recommender System  
**SeongKu Kang**, Junyoung Hwang, Wonbin Kweon, Hwanjo Yu  
ACM International Conference on Information and Knowledge Management (**CIKM 2020**)
- C4 Deep Rating Elicitation for New Users in Collaborative Filtering  
Wonbin Kweon, **SeongKu Kang**, Junyoung Hwang, Hwanjo Yu  
ACM International World-Wide Web Conference (**WWW 2020**)
- C3 Multi-Modal Component Embedding for Fake News Detection  
**SeongKu Kang**, Junyoung Hwang, Hwanjo Yu  
IEEE International Conf. Ubiquitous Information Management and Communication (**IMCOM 2020**)
- C2 Semi-Supervised Learning for Cross-Domain Recommendation to Cold-start Users  
**SeongKu Kang**, Junyoung Hwang, Dongha Lee, Hwanjo Yu  
ACM International Conference on Information and Knowledge Management (**CIKM 2019**)
- C1 Densifying a Trust Network for Effective Collaborative Filtering  
**SeongKu Kang**, Jemin Wang, Yeon-Chang Lee, Sang-Wook Kim  
Korean DataBase Conference (**KDBC 2017**, Best Paper Award)

## JOURNALS

- J3 Mitigating viewpoint sensitivity of self-supervised one-class classifiers  
Hyunjun Ju, Dongha Lee, **SeongKu Kang**, Hwanjo Yu  
**Information Sciences (SCI)** (2022.09)
- J2 Personalized Knowledge Distillation for Recommender System  
**SeongKu Kang**, Dongha Lee, Wonbin Kweon, Hwanjo Yu  
**Knowledge-Based Systems (SCI)** (2022.03)
- J1 Item-side Ranking Regularized Distillation for Recommender System  
**SeongKu Kang**, Junyoung Hwang, Wonbin Kweon, Hwanjo Yu  
**Information Sciences (SCI)** (2021.11)

## AWARDS & SCHOLARSHIPS

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|  |   |
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| <b>POSTECHIAN Fellowship</b>   | POSTECH, 2022                             |
| <b>POSTECH Research Award (4th place)</b>                                    | National Research Foundation, Korea, 2022 |
| ▪ Awarded to outstanding research outcome in POSTECH                         |   |
| <b>Naver Ph.D Fellowship</b>   | Naver, 2021                               |
| ▪ Awarded to outstanding Ph.D students majoring in computer science in Korea |   |
| <b>Music Playlist Recommendation Competition (3rd place)</b>                 | Kakao, 2020                               |
| <b>SIGIR Student Travel Award</b>  | ACM SIGIR, 2019-2020                      |
| <b>Dean's List</b>   | Hanyang University, 2018                  |

**Best Paper Award (3rd place)**

**NAVER Academic Scholarship**

**Hanyang Brain Scholarship**

**National Science and Technology Scholarship**

Korean Database Conference (KDBC), 2017

Naver, 2017

Hanyang University, 2012

Ministry of Education, Korea, 2012-2017