

## RESEARCH INTERESTS

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Machine learning & deep learning based information retrieval and data mining. Especially interested in:

- Context-aware Sequential Recommendation Model
- Explainable Recommender System
- Parameter-efficient Recommendation Model
- Large Language Model for Recommender System
- Cross-domain Image Retrieval
- Deep Learning Applications for E-commerce

## WORK EXPERIENCE

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- **Dankook University** 2025.09 – current  
*Assistant Professor*
- **Korea Advanced Institute of Science & Technology** 2024.09 – 2025.08  
*Postdoctoral Researcher*
- **Intellisys Corp.** 2017.12 – 2020.08  
*Senior Researcher*
- **Stylewiki Corp.** 2014.09 – 2015.12  
*Senior Developer*

## EDUCATION

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- **Seoul National University** 2017.03 – 2024.08  
*Ph.D. in Computer Science and Engineering*
- **Yonsei University** 2010.03 – 2017.02  
*B.S. in Mathematics & Computer Science (double major)*

## PUBLICATIONS

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- [1] S.-h. Jo, Y. Ko, S.-g. Lee, and **J. Seol**, Task-aware block pruning with output distribution signals for large language models, The 19th Conference of the European Chapter of the Association for Computational Linguistics (**EACL**), 2026.
- [2] S. Park, H. Jeong, T. Djanibekov, G. Jeon, **J. Seol**, and J. Choi, On the relationship between populated regions and adversarial robustness in deep neural networks, The 25th IEEE International Conference on Data Mining (**ICDM Short**), 2025.
- [3] **J. Seol** and J. Choi, Context-aware negative sampling for sequential recommendation, IEEE Access, 2025.
- [4] **J. Seol**, Y. Ko, and S.-G. Lee, Parameter-efficiently Leveraging Session Information in Deep Learning based Session-aware Sequential Recommendation, IEEE Access, 2025.
- [5] H. Na, M. Gang, Y. Ko, **J. Seol**, and S.-g. Lee, Enhancing Large Language Model Based Sequential Recommender Systems with Pseudo Labels Reconstruction, Findings of the Association for Computational Linguistics: EMNLP 2024 (**EMNLP Short Findings**), 2024.
- [6] **J. Seol**, M. Gang, S.-g. Lee, and J. Park, Proxy-based Item Representation for Attribute and Context-aware Recommendation, The 17th ACM International Conference on Web Search and Data Mining (**WSDM**), 2024.

- [7] H. Lee, **J. Seol**, S.-g. Lee, J. Park, and J. Shim, Contrastive Learning for Unsupervised Image-to-image Translation, *Applied Soft Computing*, 2024.
- [8] S. Jang, H. Y. Kim, Y. Lee, **J. Seol**, S. Kim, and S. G. Lee, Deep learning for classification of high-end fashion brand sensibility, *Journal of the Korean Society of Clothing and Textiles*, 2022.
- [9] **J. Seol**, Y. Ko, and S.-g. Lee, Exploiting Session Information in BERT-based Session-aware Sequential Recommendation, *Proceedings of the 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR Short)*, 2022.
- [10] **J. Seol**, S. Kim, S. Park, H. Lim, H. Na, E. Park, D. Jung, S. Park, K. Lee, and S.-g. Lee, Technologies for AI-Driven Fashion Social Networking Service with E-Commerce, *Semantic Intelligence: Select Proceedings of ISIC 2022*, 2023.
- [11] H. Cho, **J. Seol**, and S.-g. Lee, Masked Contrastive Learning for Anomaly Detection, *The 30th International Joint Conference on Artificial Intelligence (IJCAI)*, 2021.
- [12] S. Kim, **J. Seol**, H. Lim, and S.-g. Lee, False Negative Distillation and Contrastive Learning for Personalized Outfit Recommendation, *arXiv preprint arXiv:2110.06483*, 2021.
- [13] H. Cho, C. Ahn, K. M. Yoo, **J. Seol**, and S.-g. Lee, Leveraging Class Hierarchy in Fashion Classification, *Proceedings of the IEEE/CVF International Conference on Computer Vision Workshops (ICCV Workshop)*, 2019.
- [14] H. Lee, **J. Seol**, and S.-g. Lee, Style2vec: Representation Learning for Fashion Items from Style Sets, *arXiv preprint arXiv:1708.04014*, 2017.
- [15] S. Choi, T. Kim, **J. Seol**, and S.-g. Lee, A Syllable-based Technique for Word Embeddings of Korean Words, *Proceedings of the First Workshop on Subword and Character Level Models in NLP (EMNLP Workshop SCLeM)*, 2017.
- [16] S. Choi, **J. Seol**, and S.-g. Lee, On Word Embedding Models and Parameters Optimized for Korean, *한국어정보학회: 학술대회논문집*, 2016.
- [17] **J. Seol** and S.-g. Lee, lexrankr: LexRank 기반 한국어 다중 문서 요약, *한국정보과학회 학술발표논문집*, 2016.

## PATENTS

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- **The Automatic Recommendation System and Method of the Fashion Coordination** 1023070950000  
박성찬, 설진석, 안채민, 이상구
- **Electronic Device, Server and Method Thereof for Recommending Fashion Item** 1024649060000  
이한빛, 설진석, 이상구, 이형동

## TEACHING EXPERIENCE

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- **Teaching Assistant**  
*Seoul National University*
  - IT Entrepreneurship [M1522.002700] (2020 Fall)
  - Introduction to Databases [M1522.001800] (2017 Fall)
  - Digital Computer Concept and Practice [035.001] (2017 Spring)
  - Recommender Systems [4190.773] (2024 Spring)
- **Instructor**  
*Dankook University*
  - SW Convergence Coding II [529550] (2025 Fall)
  - Computer and Communication [478500] (2025 Fall)
  - SW Convergence Coding II [529550] (2026 Winter)
  - SW Convergence Coding I [529540] (2026 Spring)
  - Data Structure [549370] (2026 Spring)
  - Database [329810] (2026 Spring)

## SCHOLARSHIPS AND AWARDS

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|-----------------------------------------------------------|-------------------|
| • KFAS Scholarhp (Underground Scholarship in Mathematics) | 2012.02 – 2015.02 |
| • SW Maestro (Government Program, 2nd Tier Mentee)        | 2011.07 – 2012.07 |

## EXTRACURRICULAR ACTIVITIES

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- Program Committee at AAAI 2026