

EDUCATION	New York University	New York, USA
	<i>Ph.D. Student in Computer Science</i>	Sep 2025 - Present
	• Advisor: Prof. Julia Stoyanovich	
	Korea University	Seoul, Korea
	<i>M.S. in Mathematics (Applied Mathematics)</i>	Mar 2024 - Aug 2025
	• Advisor: Prof. Seungsang Oh	
	• GPA: 4.00/4.00 (Integrated B.S./M.S. Program)	
	Korea University	Seoul, Korea
	<i>B.S. in Mathematics, B.E. in Computer Science and Engineering</i>	Mar 2020 - Feb 2024
	• GPA: 3.76/4.00, Great Honor (Magna Cum Laude)	

- PUBLICATIONS
1. S. Lee, S. Choi, T. Kang, S. Chung, S. Han, J. Seo, S. Oh, and I.-Y. Kwak, *iWAX: Interpretable Wav2vec-AASIST-XGBoost Framework for Voice Spoofing Detection*, Scientific Reports.
 2. S. Chung, H. Kim, S. Lee, S. Lee, and S. Oh, *Honeycomb-lattice monomer-dimer mixtures*, Journal of Statistical Physics.
 3. J. Kim*, S. Lee*, S.M. Ahn, G. Choi, B.-K. Je, B.J. Park, Y. Cho, and S. Oh, *Deep Learning Model Using Cross-sequence Learning to Identify Orbital Fractures in Radiographs of Patients Under 20 Years*, Frontiers in Bioengineering and Biotechnology. (*: equal contribution)
 4. S. Han*, J. Seo*, S. Choi, T. Kang, S. Chung, S. Lee, S. Park, S. Oh, and I.-Y. Kwak, *Enhancing voice spoofing detection in noisy environments using frequency feature masking augmentation*, Engineering Science and Technology, an International Journal. (*: equal contribution)
 5. S. Lee*, N. Jeong*, J. Je*, and S.-Y. Lee, *BCCP: An MLOps Framework for Self-cleansing Real-Time Data Noise via Bayesian Cut-off-based Closest Pair Sampling*, IEEE International Conference on Artificial Intelligence x Data & Knowledge Engineering 2024. (*: equal contribution)
 6. S. Choi, S. Chung, S. Lee, S. Han, T. Kang, J. Seo, I.-Y. Kwak, and S. Oh, *TB-ResNet: Bridging the gap from TDNN to ResNet in Speaker Verification with Temporal-Bottleneck Enhancement*, ICASSP 2024.
 7. S. Lee*, Y. Cho*, Y. Ji, M. Jeon, A. Kim, B.-J. Ham*, and Y.Y. Joo*, *Multimodal integration of neuroimaging and genetic data for the diagnosis of mood disorders based on computer vision models*, Journal of Psychiatric Research. (*: equal contribution)
 8. S. Lee, S.H. Hwang, S. Oh, B.J. Park, and Y. Cho, *Multi-input Vision Transformer with Similarity Matching*, MICCAI PRIME Workshop 2023.

- PREPRINTS
1. S. Lee, K. Lee, S. Bae, S. Lee, S. Lee, I.-Y. Kwak, and S. Oh, *Table2Image: A Lightweight Framework for Enhanced Tabular Data Classification with Image Transformation*
 2. S. Lee, G. Yang, and Y. Cho, *CurvUNet: Curvature-Informed UNet for Enhanced Medical Image Segmentation*
 3. S. Lee, S. Chung, S. Lee, and S. Oh, *Counting perfect matchings in torus grid graphs*

RESEARCH EXPERIENCE	Center for Responsible AI, New York University	New York, USA
	<i>Graduate Research Assistant</i>	Sep 2025 - Present
	<ul style="list-style-type: none"> • Advisor: Prof. Julia Stoyanovich 	
	Department of Mathematics, Korea University	Seoul, Korea
	<i>Graduate Research Assistant</i>	Apr 2023 - Aug 2025
	<ul style="list-style-type: none"> • Advisor: Prof. Seungsang Oh • Designed interpretable tabular data classification and voice spoofing detection • Conducted research in enumerative combinatorics 	
	Department of Radiology, Korea University Anam Hospital	Seoul, Korea
	<i>Undergraduate Research Intern</i>	Apr 2022 - Mar 2023
	<ul style="list-style-type: none"> • Advisor: Prof. Yongwon Cho • Proposed interpretable models for pediatric imaging and geometry-aware segmentation 	
	Institute of Data Science, Korea University	Seoul, Korea
	<i>Undergraduate Research Intern</i>	Nov 2021 - Mar 2022
	<ul style="list-style-type: none"> • Advisor: Prof. Yoonjung Yoonie Joo and Prof. Yongwon Cho • Designed multimodal fusion models using medical imaging and genomic data for psychiatric disorder diagnosis 	
WORK EXPERIENCE	SCIEN	Ulsan, Korea
	<i>Data Scientist & Engineer Intern</i>	Jul 2024 - Aug 2024
	<ul style="list-style-type: none"> • Developed pill efficacy ML, DL models with Handok Pharmaceuticals 	
TEACHING EXPERIENCE	Department of Mathematics, Korea University	Seoul, Korea
	<i>Teaching Assistant</i>	Mar 2024 - Aug 2025
	<ul style="list-style-type: none"> • Topology I (MATH 333) & Deep Learning Math (MATH 391) 	
	Korea Human Resource Development Institute for Health & Welfare	Seoul, Korea
	<i>Teaching Assistant</i>	Aug 2022 - Nov 2022
	<ul style="list-style-type: none"> • Guided a medical AI project on CT-free orthopedic diagnosis using DRR and X-ray segmentation • Evaluated final competition entries 	
TECHNICAL SERVICES	Photorage	Seoul, Korea
	<i>Technical advisor</i>	Sep 2023
	<ul style="list-style-type: none"> • Provided technical guidance on image generation and recommendation systems for a photo storage app at a startup 	

AWARDS AND HONORS	• School of Engineering Fellowship, New York University (NYU)	Sep 2025 - Aug 2026
	• Teaching & Research Assistant Scholarship, Korea University (KU)	Mar 2024 - Aug 2025
	• Scholarship for Integrated B.S./M.S. Program Students, KU	Mar 2024 - Aug 2025
	• Scholarship for Veritas Program (REU, College of Informatics, KU)	Fall 2023
	• Scholarship for Veritas Program (REU, College of Science, KU)	2023
	• Samsung SDS Scholarship	2020 - 2023
	• Dean's List (College of Science, KU)	Fall 2020
	• Semester High Honors, KU	2020 - 2023

LANGUAGES	Korean (native), English (fluent), Spanish (intermediate), Chinese (intermediate)
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