

**RESEARCH INTEREST.** My research focuses on Causal Decision Making and Causal Effect Identification. I study how to graphically model a wide range of real-world problems in a causal manner and make optimal decisions. In particular, my research explores methods for making robust decisions, even when modeling with incomplete information, and decision-making processes in sequential settings.

## Education

### Graduate School of Data Science, Seoul National University

Integrated M.S and Ph.D in Data Science (Advisor: Prof. [Sanghack Lee](#))

Seoul, South Korea

Fall 2022 - Fall 2027 (expected)

### Department of Mathematics and Statistics, Sejong University

B.S in Applied statistics and Mathematics, Cum Laude (Advisor: Prof. [Ji Eun Lee](#))

Seoul, South Korea

Spring 2016 - 2022

## Publications

\* for joint first authorship and <sup>†</sup> for corresponding author.

### 1. [Structural Causal Bandits under Markov Equivalence](#)

[Min Woo Park](#), Andy Ardit, Elias Bareinboim<sup>†</sup>, Sanghack Lee<sup>†</sup>

Neural Information Processing Systems (NeurIPS), 2025., Columbia CausalAI Laboratory, Technical Report (R-122)

(Acceptance rate: 24.52%).

### 2. On Transportability for Structural Causal Bandits

[Min Woo Park](#) and Sanghack Lee<sup>†</sup>

arXiv preprint, 2025.

### 3. [Complete Graphical Criterion for Sequential Covariate Adjustment in Causal Inference](#)

Yonghan Jung<sup>†</sup>, [Min Woo Park](#), and Sanghack Lee<sup>†</sup>

Neural Information Processing Systems (NeurIPS), 2024

(Acceptance rate: 25.75%).

### 4. [Computation of the iterated Aluthge, Duggal, and Mean transforms](#)

[Min Woo Park](#)<sup>\*</sup>, and Ji Eun Lee<sup>\*†</sup>

Filomat, 2023.

### 5. Counterfactual Structural Causal Bandits

[Min Woo Park](#) and Sanghack Lee<sup>†</sup>

under review.

### 6. Convergence of the iterated mean transforms of a $2 \times 2$ matrix

Ji Eun Lee<sup>\*†</sup> and [Min Woo Park](#)<sup>\*</sup>

under review.

## Awards and Honors

BK21 Scholarship	2025
BK21 Scholarship	2024
4th place Award   The 9th College of Natural Sciences Academic Conference, Sejong University	Nov 2021
First Place Academic Scholarship   Department of Mathematics and Statistics, Sejong University	Fall 2021
Third Place Award   The 8th College of Natural Sciences Academic Conference, Sejong University	Nov 2020
First Place Academic Scholarship   Department of Mathematics and Statistics, Sejong University	Fall 2020

## Projects

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Scalable Causal Discovery   LG AI Research	Sep 2025 - present
Hyundai NGV Data Boot-Campus   Hyundai Motors	July 2025 - Sep 2025
Hyundai NGV Data Boot-Campus   Hyundai Motors	July 2024 - Sep 2024

## Teaching Assistants

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Causal Inference for Data Science	Spring 2025
Causal Inference for Data Science	Fall 2024
Causal Inference for Data Science	Spring 2024
Machine Learning and Deep Learning for Data Science II	Fall 2023
Basic Mathematics for Artificial Intelligence	Spring 2022

## Invited Talks

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### Structural Causal Bandits under Markov Equivalence

NeurIPS 2025 poster session   San Diego, USA	Dec 2025
JKAIA 2025, NeurIPS preview session   Seoul, South Korea	Nov 2025
SNU GSIDS student research seminar   Seoul, South Korea	Apr 2025

### Complete Graphical Criterion for Sequential Covariate Adjustment in Causal Inference

NeurIPS 2024 poster session   Vancouver, Canada	Dec 2024
SNU GSIDS student research seminar   Seoul, South Korea	Dec 2024

## Academic Services

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**Conference Reviewer:** 2026 ICLR, 2025 ICML

## Reference

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<b>Sanghack Lee</b>   Seoul National University	<a href="mailto:sanghack@snu.ac.kr">sanghack@snu.ac.kr</a>
Associate professor	
<b>Ji Eun Lee</b>   Sejong University	<a href="mailto:jieunlee7@sejong.ac.kr">jieunlee7@sejong.ac.kr</a>
Associate Professor	
<b>Jin Hee Yoon</b>   Sejong University	<a href="mailto:jin9135@sejong.ac.kr">jin9135@sejong.ac.kr</a>
Assistant Professor	

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