

**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** Seoul  
M.S and Ph.D in Data Science Fall 2022 - present

- Advisor: Prof. Sanghack Lee
- Research area: Causal Decision Making, Causal Effect Identification

**Department of Mathematics and Statistics, Sejong University** Seoul  
B.S. in Applied statistics and Mathematics (Double Major) Spring 2016 - Spring 2022

- Advisor: Prof. Jieun Lee
- Research area: Operator Theory

- Publications**
1. Structural Causal Bandits under Markov Equivalence  
Min Woo Park, Andy Ardit, Elias Bareinboim<sup>†</sup>, Sanghack Lee<sup>†</sup>  
Columbia CausalAI Laboratory, Technical Report (preprint), 2025.
  2. On Transportability for Structural Causal Bandits  
Min Woo Park and Sanghack Lee<sup>†</sup>  
under review.
  3. 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.
  4. 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.
  5. Computation of the iterated Aluthge, Duggal, and Mean transforms  
Min Woo Park<sup>\*</sup>, and Ji Eun Lee<sup>\*†</sup>  
Filomat, 2023.

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

**Awards and Honors**

|                                  |  |           |
|----------------------------------|--|-----------|
| BK21 Scholarship                 | Seoul National University  | 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** Scalable Causal Discovery | LG AI Research Fall 2025 - present

|                     |  |                      |
|---------------------|--|----------------------|
| Teaching Assistants | Hyundai NGV Data Boot-Campus                           | July 2025 - Sep 2025 |
|                     | Causal Inference for Data Science                      | Spring 2025          |
|                     | Causal Inference for Data Science                      | Fall 2024            |
|                     | Hyundai NGV Data Boot-Campus                           | July 2024 - Sep 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 | SNU GSDS Student Research Seminar   Seoul National University | Apr 2025 |
|               | NeurIPS Poster Session   Vancouver, Canada                    | Dec 2024 |
|               | SNU GSDS Student Research Seminar   Seoul National University | Dec 2024 |

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|-------------------|--------------------------------|
| Academic Services | Conference Reviewer: ICML 2025 |
|-------------------|--------------------------------|

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|-----------|---|------------------------|
| Reference | Sanghack Lee   Seoul National University<br>Associate professor | sanghack@snu.ac.kr     |
|           | Ji Eun Lee   Sejong University<br>Associate Professor           | jieunlee7@sejong.ac.kr |

Last updated: Aug 21, 2025