

Jinwon Sohn

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EDUCATION

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- Purdue University** West Lafayette, USA
• *Ph.D. candidate - Statistics / Advisor : Professor Qifan Song* Jan 2021 - Present
 - Yonsei University** Seoul, Korea
• *Master degree - Applied Statistics & Data Science / Advisor : Professor Taeyoung Park* Mar 2018 - Feb 2020
 - Yonsei University** Seoul, Korea
• *Bachelor degree - Applied Statistics; Rank : 1/92* - Mar 2018

RESEARCH INTEREST

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- Fairness-aware Machine Learning, Generative Modeling, Differential Privacy, Principal Curve

PUBLICATION

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- **Sohn, J.**, Song, Q., & Lin, G. (2024). Fair Supervised Learning with A Simple Random Sampler of Sensitive Attributes. In *AISTAT* (pp. 1594-1602). PMLR.
 - Kang, T., Kim, S., **Sohn, J.**, & Awan, J. (2024). Differentially Private Topological Data Analysis. *Journal of Machine Learning Research*.
 - **Sohn, J.**, Jeong, S., Cho, Y. M., & Park, T. (2023). Functional Clustering Methods for Binary Longitudinal Data with Temporal Heterogeneity. In *Computational Statistics & Data Analysis*, 185, 107766.

PREPRINT

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- **Sohn, J.** & Song, Q. Parallely Tempered Generative Adversarial Networks. This is under revision for the special issue (Statistical Science in Artificial Intelligence) in *Journal of American Statistical Association*.

IN PREPARATION

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- **Sohn, J.**, Song, Q., & Lin, G. Task-tailored Pre-processing for Fair Supervised Learning. This will be submitted to *Transaction on Pattern Analysis and Machine Intelligence*.
 - Lim, T., Nam, K., & **Sohn, J.** Monotone curve estimation via convex duality. This will be submitted to *Operation Research*.
 - **Sohn, J.**, Kang, T., & Kim, S. Dynamic Simplicial Neural Network, in preparation.

PRESENTATION

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- 2024 Fall Graduate Student Workshop in Statistics, Purdue University, USA
- Parallely Tempered Generative Adversarial Networks
 - 2024 Methods for Feature Selection, the Joint Statistical Meetings, USA
- Fair Supervised Learning with A Simple Random Sampler of Sensitive Attributes
 - 2024 Spring Purdue Graduate Student Organization Seminar, Purdue University, USA
- Fair Supervised Learning with A Simple Random Sampler of Sensitive Attributes
 - 2019 Fall Conference of the Korean Statistical Society, University of Seoul, Korea
- Variational Inference on Functional Clustering of Varying Coefficients
 - 2018 Fall Conference of the Korean Statistical Society, Ewha Woman University, Korea
- Functional Clustering Methods for Binary Longitudinal Data with Temporal Heterogeneity

AWARD AND HONOR

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- 2024 - 2025 Ross Lynn Research Scholar Grant for Statistics at Purdue University, USA
 - College of Science Graduate Student Travel Award for Spring 2024
 - 2024 High Profile Student Award for Research in Statistics at Purdue University, USA
 - Third Place Award for Presentation, 2019 Fall Conference of the Korean Statistical Society, Korea
 - Best Poster Award, 2018 Fall Conference of the Korean Statistical Society, Korea
 - Grand Prize in 2018 Big Contest, National Information Society Agency, Korea
 - Third Place Award in 2016&2017 Big Contest, National Information Society Agency, Korea
 - High Honors - 2017 Spring & Honors - 2016 Fall

PROFESSIONAL CAREER

- **Data Science Consulting Service** West Lafayette, USA
Research Assistant *Spring 2023 - Spring 2024*
 - **Research:** Worked on fairness-aware machine learning projects
- **Datarize** Seoul, Korea
Data Scientist *2020*
 - **Algorithm Evaluation:** Evaluated a recommendation system through causal inference.
 - **Developing Recommenders:** Developed a Multi-Objectives Contextual Multi-Armed Bandit.
- **Bayesian Statistics Laboratory - Yonsei University** Seoul, Korea
Research Assistant *2018 - 2020*
 - **Research:** Conducted research on a nonparametric Bayesian approach on varying-coefficient models
 - **Industry-Academic Cooperation:** Worked as a collaborative researcher of Amore-Pacific Corporation

SOFTWARE

- **fvcc:** Functional Clustering Methods for Varying Coefficients, written by R

TEACHING

- **Purdue University** West Lafayette, USA
Teaching Assistant *2021 - Present*
 - **STAT 303:** Probability and Statistics for Business
 - **STAT 512:** Applied Regression Analysis
 - **STAT 517:** Statistical Inference
- **Yonsei University** Seoul, Korea
Teaching Assistant *2018 - 2020*
 - **STA 3124:** Stochastic Processes
 - **STA 3126:** Mathematical Statistics

SKILL

- **Languages:** Python(Adv), R(Adv), SQL