

# 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 Curves

## PUBLICATION

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- **Sohn, J.**, Song, Q., & Lin, G. (2024). Fair Supervised Learning with A Simple Random Sampler of Sensitive Attributes. In International Conference on Artificial Intelligence and Statistics (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.

## SUBMITTED/IN PREPARATION

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- **Sohn, J.** & Song, Q. Parallely Tempered Generative Adversarial Networks. This is under major revision in the special issue of the *Journal of American Statistical Association*.
- **Sohn, J.**, Song, Q., & Lin, G. Task-tailored Pre-processing for Fair Supervised Learning. This will be submitted to the transaction on Pattern Analysis and Machine Intelligence.
- **Sohn, J.**, Nam, K., & Lim, T. Monotonic Principal Curve Fitting. 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 Spring Purdue Graduate Student Workshop Seminar, Purdue University, USA  
- Parallely Tempered Generative Adversarial Networks Attributes
- 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
- 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

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- **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

## TEACHING

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- **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

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