Jinwon Sohn

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Education

- **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

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

Publication

* : Alphabetical order

- **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

- **Sohn, J.** & Song, Q. Parallelly Tempered Generative Adversarial Networks.

Working Paper

- **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

- 2024 Fall Graduate Student Workshop in Statistics, Purdue University, USA
  - Parallelly 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

- 2024 - 2025 Ross Lynn Research Scholar Grant for Statistics at Purdue University, USA
- College of Science Graduate Student Travel Award for Spring 2024 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

- **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 — *Feb 2018 - Feb 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 — *Spring 2021 - Fall 2022*
  - **STAT 303**: Probability and Statistics for Business
  - **STAT 512**: Applied Regression Analysis
  - **STAT 517**: Statistical Inference
- **Yonsei University** — Seoul, Korea
  Teaching Assistant — *Feb 2018 - Feb 2020*
  - **STA 3124**: Stochastic Processes
  - **STA 3126**: Mathematical Statistics

Skill

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