Jinwon Sohn

Homepage: https://jwsohn612.github.io/ Github:github.com/jwsohn612

EDUCATION

- **Purdue University**
- Ph.D. candidate Statistics / Advisor : Professor Qifan Song
- Yonsei University Master degree - Applied Statistics & Data Science / Advisor : Professor Taeyoung Park
- Yonsei University Bachelor degree - Applied Statistics; Rank : 1/92

Research Interest

• Fairness-aware Machine Learning, Generative Modeling, Synthetic Data, Bayesian Statistics, 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. (2024). Parallelly Tempered Generative Adversarial Networks. arXiv preprint arXiv:2411.11786. This is under major revision for the special issue (Statistical Science in Artificial Intelligence) in Journal of American Statistical Association.
- Lim, T., Nam, K., & Sohn, J.* Monotone curve estimation via convex duality. Submitted to Journal of American Statistical Association.

WORKING PAPER

• Sohn, J., Song, Q., & Lin, G. Task-tailored Pre-processing for Fair Downstream Supervised Learning. This will be submitted to Transactions on Pattern Analysis and Machine Intelligence.

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

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> West Lafavette, USA Jan 2021 - Present Seoul, Korea Mar 2018 - Feb 2020

> > Seoul, Korea - Mar 2018

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 Lab 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

• Teaching Assistant

- STAT 303: Probability and Statistics for Business
- **STAT 512**: Applied Regression Analysis
- **STAT 517**: Statistical Inference

Yonsei University

- Teaching Assistant
 - STA 3124: Stochastic Processes
 - STA 3126: Mathematical Statistics

Skill

• Languages: Python(Adv), R(Adv), SQL

Reference

Dr. Qifan Song Associate Professor, Department of Statistics, Purdue University Email: qfsong@purdue.edu Dr. Guang Lin Professor, Department of Mathematics and School of Mechanical Engineering, Purdue University Email: guanglin@purdue.edu Dr. Jordan Awan Assistant Professor, Department of Statistics, Purdue University Email: jawan@purdue.edu

West Lafayette, USA Spring 2021 - Fall 2022

> Seoul, Korea Feb 2018 - Feb 2020