Daeyoung Lim

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EDUCATION

University of Connecticut (supervised by Dr. Ming-Hui Chen) Aug. 2018 – Expected Aug. 2023
Doctor of Philosophy in Statistics Storrs, CT

Korea University Aug. 2016 – Aug. 2018
Master of Science in Statistics Seoul, South Korea

Korea University March. 2010 – Aug. 2016
Bachelor of Arts in Statistics Seoul, South Korea

RESEARCH EXPERIENCE

Publications

- **Lim, D.**, Chen, M. H., Ibrahim, J. G., Kim, S., Shah, A. K., & Lin, J. (*Accepted*). metapack: An R package for Bayesian meta-analysis and network meta-analysis with a unified formula interface.
- **Lim, D.**, Chen, M. H., Ravishanker, N., Bolduc, M., McKeon, B., Nolan, S. (2022). A Hybrid Monitoring Procedure for Detecting Abnormality with Application to Energy Consumption Data, Journal of Data Science, 1-21, DOI 10.6339/22-JDS1039
- Li, H., **Lim, D.**, Chen, M. H., Ibrahim, J. G., Kim, S., Shah, A. K., & Lin, J. (2021). Bayesian network meta-regression hierarchical models using heavy-tailed multivariate random effects with covariate-dependent variances. Statistics in Medicine.
- **Lim, D.**, Park, B., Nott, D., Wang, X., & Choi, T. (2020). Sparse signal shrinkage and outlier detection in high-dimensional quantile regression with variational Bayes. Statistics and Its Interface, 13(2), 237-249.

Work in Progress

- Han, D., **Lim, D.**, & Choi, T. (*Submitted*). Bayesian Sparse Seemingly Unrelated Regressions Model with Variable Selection and Covariance Estimation via the Horseshoe+
- Chen, M. H., **Lim, D.**, Ravishanker, N., Linder, M. H., Bolduc, M., McKeon, B., & Nolan, S. (*Submitted*). Collaborative Analysis for Energy Management on a Large University Campus.
- **Lim, D.**, Rantou, E., Kim, J., Choi, S., & Choi, N. (*Work in progress*). Adaptive designs for IVPT data with mixed scaled average bioequivalence.
- **Lim, D.**, Han, D., & Choi, T. (*Work in progress*). Bayesian Semiparametric Partially Linear Accelerated Failure Time Models with Gaussian Processes.
- **Lim, D.**, Chen, M. H., Ibrahim, J. G., Kim, S., Shah, A. K., & Lin, J. (*Work in progress*). Matrix-logarithm parameterization for covariance estimation in meta-regression.
- **Lim, D.**, Chen, M. H. (*Work in progress*). Bayesian multivariate semiparametric regression modeling for high-frequency energy consumption data across multiple buildings.

Talks

- "EnergyStats - Statistical Energy Usage Monitoring and Management at UConn," *Hartford Steam Boiler*, July 2022
- "Further considerations in the statistical analysis of IVPT data using adaptive design," *U.S. Food and Drug Administration*, July 2022
- "The Neyman-Pearson Lemma and The Kullback-Leibler Divergence," *Student Lecture Series*, June 2022

Reviewer Experience

- 1 article reviewed for the **Journal of American Statistical Association**
- 1 article reviewed for **BMC Bioinformatics**
- 2 articles reviewed for **Journal of Computational and Graphical Statistics**

TEACHING EXPERIENCE

University of Connecticut

- Primary Instructor, Statistical Programming in Python (STAT 2255), Fall 2021
- Teaching Assistant, Introductory Statistics (STAT 1000), Fall 2018

Korea University

- Teaching Assistant, Statistical Computing (STAT 323), Spring 2018
- Teaching Assistant, Inferential Statistics (STA 513), Spring 2018
- Teaching Assistant, Topics in Mathematical Statistics (STAT 412), Fall 2017
- Teaching Assistant, Mathematical Statistics (STAT 232), Fall 2017
- Teaching Assistant, Statistical Computing Methods (STAT 323), Spring 2017

EXPERIENCE

Oak Ridge Institute for Science and Education (ORISE) Fellowship
May. 2022 – Present

ORISE Fellow

- Center for Drug Evaluation and Research (CDER), U.S. Food and Drug Administration
- Responsible for researching adaptive experimental designs for bioequivalence studies based on in vitro permeation tests (IVPT)

Student Lecture Series, UConn
Jun. 2022 – Present

Cofounder

- Founded Student Lecture Series to help share and proliferate knowledge among graduate students
- First speaker to kick off the series

New England Journal of Statistics in Data Science
Aug. 2018 – Present

Software Engineer (link)

- Created the entire website from scratch using Node.js in the backend (Express.js for web framework)
- Created a database using MariaDB for users

EnergyStats
Aug. 2018 – Present

Software Engineer & Data Analyst (link)

- **Created various dashboards** visualizing energy use data collected by the University of Connecticut
- **Led the team effort** of modeling monthly and high-frequency energy data to produce efficient monitoring and predictive algorithms

Statistical Consulting
Aug. 2018 – Dec. 2019

Consultant

- Worked as a walk-in consultant for members of the University of Connecticut; **resolved various real-world problems** most notably regarding generalized linear models, correlation analysis, general linear model, and structural equation modeling
- Worked on a semester-long project on multiple comparison problem where approximately eight correlations were tested simultaneously
- Presented on power analysis at a statistics workshop geared toward explaining technical topics to nonexperts

ORGANIZING CONFERENCES

BaYSM 2022 (Organizing member) June 22 – June 23, 2022

- Participated as an organizing member, creating the website and hosting the event
- Website link

Statathon 2022 (Chair) February 23 - May 18, 2022

- Organized Statathon 2022 as chair
- The competition took place in sync with NESS Symposium 2022
- Website link

EAC-ISBA 2021 (Organizing member) November 16 – 19, 2021

- Participated as an organizing member, creating the website and hosting the event
- Website link

New England Statistical Society Symposium 2021 (Organizing member) September 30 – October 2, 2021

- Participated as an organizing member, creating the website and hosting the event
- Website link

BaYSM 2021 (Organizing member) September 1 – September 3, 2021

- Participated as an organizing member, creating the website and hosting the event
- Website link

ISBA World Meeting 2021 (Organizing member) June 28 - July 2, 2021

- Participated as an organizing member, creating the website and hosting the event
- Won a travel award in recognition of the contribution
- Website link

SKILLS

Languages : R, C++, Python, JavaScript, HTML/CSS, SQL (MSSQL, MySQL), FORTRAN, MATLAB
Tools : Git, SAS