Sang Kyu Lee

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EDUCATION

Michigan State University   East Lansing, USA

Ph.D. in Statistics   Sep. 2019 - Present

- Advisors: Dr. Hyokyoung Grace Hong / Dr. Haolei Weng

Konkuk University   Seoul, Republic of Korea

B.A. & M.A. in Applied Statistics   Aug. 2016 & Feb. 2019

- Advisor: Dr. Hyoung-Moon Kim

COMPUTER LANGUAGE PROFICIENCY

Proficient level : R, LaTeX, Markdown, Python, C/C++(Rcpp)

Intermediate level : SPSS, SAS

Experience level : STATA, SQL

SOFTWARES

DiSSMod

R package on CRAN; Maintainer and author   Shiny example link / CRAN link

Tools to fit sample selection models in case of discrete response variables, through a parametric formulation which represents a natural extension of the well-known Heckman selection model

EMSS

R package on CRAN; Maintainer and author   CRAN link

Some EM-type algorithms to estimate parameters for the well-known Heckman selection model

RESEARCH PAPERS

Chang, J., **Lee, S. K.** and Kim, H. M. "New efficient estimator for Dirichlet distribution", *Journal of Multivariate Analysis*, *under review*

Yang, K., **Lee, S. K.**, Zhao, J. and Kim, H. M. (2021) "EMSS: New EM-type algorithms for the Heckman selection model in R", *The R journal*, 13, 2, 306-320, https://doi.org/10.32614/RJ-2021-098

Lee, S. K., Chang, J. and Kim, H. M. (2021) "Further sharpening of Jensen's inequality", *Statistics*, 55, 5, 1154-1168, https://doi.org/10.1080/02331888.2021.1998052

Zhao, J., **Lee, S. K.** and Kim, H. M. (2019) "Some counterexamples of a skew-normal distribution", *Communications for Statistical Applications and Methods*, 26, 6, 583-589, https://doi.org/10.29220/CSAM.2019.26.6.583

Graduate Student Representative, Michigan State University   East Lansing, USA

Elected Ph.D. student Representative   Aug. 2021 - Present

- Participated/ing as a member of several committees with professors; Major Curriculum Committee, Inviting Talk Committee and the Committee of Whole.

Research Assistant, Michigan State University   East Lansing, USA

Graduate research assistant in Institute for Health Policy   Oct. 2020 - Present

- Participated/ing several projects related to the topics such as the evaluations of policies about opioids and medicaid, and COVID-19 data analyses. I mainly working with hospitals and the state government(MDHHS).

Teaching Assistant, Michigan State University   East Lansing, USA

Graduate teaching assistant   Sep. 2019 - Dec. 2020

- Lab instructor for STT 200 class / A grader for various undergraduate classes

Regular Statistics Assessment, Statistics Korea   Daejeon, Republic of Korea

Research Assistant   Feb. 2019 - Nov. 2019

- Government funded research assistant for assessing some Statistics

Statistical Consulting Laboratory, Konkuk University   Seoul, Republic of Korea

Statistical consultant   Mar. 2017 - Feb. 2019

- Statistical consulting services for students from other departments. (Data handling to modelling)
  - Used methods: meta analysis, generalized linear model, linear regression, multivariate analysis, and elementary statistical methods
- Statistical consulting services for companies.
  - Collaboration with an adjunct professor about statistical modelling with real estate data
  - Survey modelling and survey analysis for Cultural Heritage Administration

Graduate Assistant, Konkuk University   Seoul, Republic of Korea

Graduate research assistant   Sep. 2017 - Feb. 2019

- Conducted researches in distribution theory(mainly skewed distributions), practical & fundamental statistical theories, statistical modellings, and made statistical softwares under the direction of Professor Hyoung-Moon Kim.

Graduate teaching assistant   Sep. 2017 - Feb. 2019

- Teaching assistant for undergraduate and graduate courses

KuStaR, Konkuk University
Seoul, Republic of Korea

Founder and member

A club for data analysis using R
Aug. 2018 - Present

INVITED TALKS   Intermediate R programming - apply and Rcpp functions, Konkuk University

REFERENCES   **Hyokyoung Grace Hong**, *Adjunct Associate Professor* & *Senior Investigator*

Department of Statistics and Probability, Michigan State University

Division of Cancer Epidemiology and Genetics, The National Cancer Institute

- Email: grace.hong@nih.gov

- Homepage: https://dceg.cancer.gov/about/staff-directory/hong-grace

Haolei Weng, *Assistant Professor*

Department of Statistics and Probability, Michigan State University

- Email: wenghaol@msu.edu

Hyoung-Moon Kim, *Professor*

Department of Applied Statistics, Konkuk University

- Email: hmk966a@gmail.com

- Homepage: http://home.konkuk.ac.kr/~hmkim/