

Jooho Kim

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Education

University of Minnesota, Twin Cities <i>PhD in Statistics</i>	Minnesota, United States Sep. 2026 –
Seoul National University <i>MS in Statistics</i>	Seoul, South Korea Mar. 2024 – Feb. 2026
Korea University <i>BE in Food and Resource Economics, Double major in Statistics</i> <i>Military Service, 2020 – 2021</i>	Seoul, South Korea Mar. 2018 – Feb. 2024
The University of Texas at Austin <i>Exchange Program, Economics</i>	Texas, United States Aug. 2022 – Dec. 2022

Research Interests

Missing Data, Data Integration, Statistical Machine Learning, High-Dimensional Inference

Preprints

Kim, J., Saegusa, T., and Shin, Y. E. (2026+). “Scalable and Efficient Multiple Imputation for Influence-Based Supersampled Case-Cohort Studies.” Revision invited at *Biometrics*. [\[preprint\]](#) [\[code\]](#)
Best Student Oral Presentation Award, Korean Statistical Society.

Research Experience

Prediction Model Lab, Seoul National University <i>Graduate Researcher (Advisor: Dr. Yeí Eun Shin)</i>	Seoul, South Korea Jun. 2024 – Present
◦ Led as the primary graduate researcher on a project funded by the National Research Foundation of Korea: “<i>Multiple Imputation for Missing Covariates due to Epidemiological Sampling Designs</i>”. ◦ Proposed an influence function-based supersampling approach that imputes only a subset (e.g., 3%) of the missing covariates while preserving efficiency and unbiasedness. ◦ Devised weight calibration equations that integrate distinct sampling designs for a unified analysis. ◦ Applied the proposed method to the NIH–AARP Diet and Health Study to assess expensive biomarkers associated with pancreatic cancer risk using the Cox proportional hazards model.	
Urban Informatics Lab, The University of Texas at Austin <i>Undergraduate Research Assistant (Connected through Dr. Arya Farahi)</i>	Austin, United States Oct. 2022 – Dec. 2022
◦ Aggregated and cleaned geotagged electric vehicle (EV)-related tweets across the U.S. using regular expressions and bot probability scores. ◦ Conducted hotspot analysis to identify regions with significant EV-related public sentiment.	

Contributed Talks

Scalable and Efficient Multiple Imputation for Case-Cohort Studies via Influence Function-Based Supersampling Korean Statistical Society, Seoul, Korea.	Dec. 2025
Multiple Imputation for Incomplete Survival Data with Missing Covariates: Toward Valid Causal Inference The 2nd Symposium on Causal Inference, Seoul, Korea (English).	Jun. 2025

Honors and Awards

Graduate Student Paper Award <i>Awarded by the Korean Statistical Society (KSS) for a graduate student paper presentation.</i>	Dec. 2025
Fellowship for Fundamental Academic Fields <i>Awarded by Seoul National University for academic excellence and research potential.</i>	May 2024; Feb. 2025
Graduate Research Fellowship in Science and Engineering <i>Awarded by the National Research Foundation of Korea through a competitive selection process.</i>	Sep. 2024 – Aug. 2025
Special Scholarship <i>Awarded by Korea University for academic excellence.</i>	Sep. 2022; Mar. 2023
Semester High Honors <i>Recognized by Korea University for academic excellence.</i>	Sep. 2018; Mar. 2022; Mar. 2023
Agricultural Economics Alumni Scholarship <i>Awarded by Korea University, Department of Food and Resource Economics for academic excellence.</i>	Mar. 2022

Teaching Assistantship

Survival Data Analysis and Lab <i>Advanced Undergraduate Course</i> ◦ Led hands-on lab sessions on survival analysis and graded assignments and exams.	Fall 2025
Selected Topics Seminar <i>Introductory Undergraduate Course</i> ◦ Organized weekly discussion sessions and advised on data analysis projects.	Spring 2025
Mathematical Statistics 2 <i>Core Undergraduate Course</i> ◦ Held office hours, graded assignments and exams, and prepared solution sets.	Fall 2024
Statistics Lab <i>Introductory Undergraduate Course</i> ◦ Evaluated Python programming assignments and exams and held office hours.	Spring 2024

Employment

Hankuk University of Foreign Studies – Insight Camp <i>Academic Mentor</i> ◦ Provided residential academic mentoring and taught math and English classes in a 4-week program. ◦ Created problem-solving exercises and offered individualized tutoring.	Jan. 2019 – Feb. 2019
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Projects

Survey Design and Analysis for the SNU Panel of Youth (SNUPY) ◦ Constructed stratified cross-sectional and longitudinal sampling weights using the R <code>survey</code> package. ◦ Advised on missing data imputation and weight calibration.	Oct. 2024; Dec. 2025
Modeling Risk Factors for Mortality and Hospitalization ◦ Analyzed clinical risk factors for mortality and hospital stay using GLMM and multiple imputation, addressing repeated events and missing data.	Sep. 2025
Bitcoin Chart Pattern Image Recognition and Price Prediction GitHub Repository ◦ Implemented Monte Carlo Dropout in the N-BEATS time-series neural network to quantify and visualize predictive uncertainty.	May 2022 – Jul. 2022

- Augmented chart image data using probability distributions, resulting in a 10% increase in accuracy.

Optimizing Pricing Strategies for a Low-Demand Food Product

May 2022 – Jun. 2022

- Designed an online survey and conducted a conjoint analysis to identify consumer preferences.
- Developed a Python algorithm to estimate the profit-maximizing bundle price for the food product.

Data Visualization of Job Openings in Korea

Nov. 2021 – Jan. 2022

[GitHub Repository](#) (In Korean)

- Extracted and preprocessed 36,000 job postings and 11,000 resumes by identifying HTML patterns.

Skills & Languages

Software R, Python, LaTeX, SAS, ArcGIS, Stata, SPSS

Languages Fluent in both English and Korean