

# Jooho Kim

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## Education

<b>Seoul National University</b> <i>MS in Statistics</i>	Seoul, South Korea Mar. 2024 – Feb. 2026
<b>Korea University</b> <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
<b>The University of Texas at Austin</b> <i>Exchange Program, Economics</i>	Texas, United States Aug. 2022 – Dec. 2022

## Research Interests

**Missing Data, Survival Analysis, Causal Inference, Uncertainty Quantification**

## Preprints

**Kim, J.** and Shin, Y. E. (2025). “Scalable and Efficient Multiple Imputation for Case-Cohort Studies via Influence Function-Based Supersampling.” arXiv:2511.14692. [\[paper\]](#) [\[software\]](#)  
*Recipient of the 2025 Korean Statistical Society Graduate Student Paper Award.*

## Research Experience

<b>Prediction Model Lab, Seoul National University</b> <i>Graduate Researcher (Advisor: Dr. Yei Eun Shin)</i>	Seoul, South Korea Jun. 2024 – Present
<ul style="list-style-type: none"><li>○ 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>”.</li><li>○ Proposed an influence function-based supersampling approach that imputes only a subset (e.g., 3%) of the missing covariates while preserving efficiency and unbiasedness.</li><li>○ Devised weight calibration equations that integrate distinct sampling designs for a unified analysis.</li><li>○ 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.</li></ul>	Austin, United States Oct. 2022 – Dec. 2022

### Urban Informatics Lab, The University of Texas at Austin

*Undergraduate Research Assistant (Connected through Dr. Arya Farahi)*

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 Presentations

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

## Honors and Awards

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

## Teaching Assistantship

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

## Employment

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<b>Hankuk University of Foreign Studies – Insight Camp</b>	Jan. 2019 – Feb. 2019
<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.

## Projects

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

- 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

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

**Languages** Fluent in both English and Korean