

# 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. [\[paper\]](#) [\[software\]](#)  
*Korean Statistical Society Graduate Student Paper Award (Winter Conference, 2025).*

## Research Experience

<b>Prediction Model Lab, Seoul National University</b> <i>Graduate Researcher (Advisor: Dr. Yeì 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: “Multiple Imputation for Missing Covariates due to Epidemiological Sampling Designs”.</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>	
<b>Urban Informatics Lab, The University of Texas at Austin</b> <i>Undergraduate Research Assistant (Connected through Dr. Arya Farahi)</i>	Austin, United States Oct. 2022 – Dec. 2022
<ul style="list-style-type: none"> <li>◦ Aggregated and cleaned geotagged electric vehicle (EV)-related tweets across the U.S. using regular expressions and bot probability scores.</li> <li>◦ Conducted hotspot analysis to identify regions with significant EV-related public sentiment.</li> </ul>	

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

## Teaching Assistantship

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<b>Survival Data Analysis and Lab</b> <i>Advanced Undergraduate Course</i> <ul style="list-style-type: none"><li>◦ Led hands-on lab sessions on survival analysis and graded assignments and exams.</li></ul>	Fall 2025
<b>Selected Topics Seminar</b> <i>Introductory Undergraduate Course</i> <ul style="list-style-type: none"><li>◦ Organized weekly discussion sessions and advised on data analysis projects.</li></ul>	Spring 2025
<b>Mathematical Statistics 2</b> <i>Core Undergraduate Course</i> <ul style="list-style-type: none"><li>◦ Held office hours, graded assignments and exams, and prepared solution sets.</li></ul>	Fall 2024
<b>Statistics Lab</b> <i>Introductory Undergraduate Course</i> <ul style="list-style-type: none"><li>◦ Evaluated Python programming assignments and exams and held office hours.</li></ul>	Spring 2024

## Employment

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<b>Hankuk University of Foreign Studies – Insight Camp</b> <i>Academic Mentor</i> <ul style="list-style-type: none"><li>◦ Provided residential academic mentoring and taught math and English classes in a 4-week program.</li><li>◦ Created problem-solving exercises and offered individualized tutoring.</li></ul>	Jan. 2019 – Feb. 2019
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## Projects

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<b>Survey Design and Analysis for the SNU Panel of Youth (SNUPY)</b> <ul style="list-style-type: none"><li>◦ Constructed stratified cross-sectional and longitudinal sampling weights using the R <code>survey</code> package.</li><li>◦ Advised on missing data imputation and weight calibration.</li></ul>	Oct. 2024; Dec. 2025
<b>Modeling Risk Factors for Mortality and Hospitalization</b> <ul style="list-style-type: none"><li>◦ Analyzed clinical risk factors for mortality and hospital stay using GLMM and multiple imputation, addressing repeated events and missing data.</li></ul>	Sep. 2025
<b>Bitcoin Chart Pattern Image Recognition and Price Prediction</b> <a href="#">GitHub Repository</a> <ul style="list-style-type: none"><li>◦ Implemented Monte Carlo Dropout in the N-BEATS time-series neural network to quantify and visualize predictive uncertainty.</li></ul>	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**

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

**Languages** Fluent in both English and Korean