

Junhyoung Chung

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Education

Seoul National University, M.S. in Statistics 2024.03 – 2026.02 (expected)
 • Advisor: [Gunwoong Park](#)

Seoul National University, B.S. & B.A. in Statistics & Economics (double major) 2018.03 – 2024.02
 • *Summa cum laude*
 • Completed mandatory military service in South Korea (2019.09 – 2021.04).

* indicates the first author, and † indicates the authors who contributed equally.

In-press / Accepted

Prediction of high-risk mountain accident areas using a Hurdle model Accepted in 2025.05
 (Written in Korean)
Junhyoung Chung*, Sungjin Lee, Gunwoong Park
 TBA in *Korean Journal of Applied Statistics*

Publications

Discovering causal structures in corrupted data: Frugality in anchored Gaussian DAG models 2025.08
 Joonho Shin[†], **Junhyoung Chung**[†], Seyong Hwang[†], Gunwoong Park[†]
 In *Computational Statistics and Data Analysis*, 213, 108267, [10.1016/j.csda.2025.108267](https://doi.org/10.1016/j.csda.2025.108267)

Learning distribution-free anchored linear structural equation models in the presence of measurement error 2024.12
Junhyoung Chung*, Youngmin Ahn, Donguk Shin, Gunwoong Park
 In *Journal of the Korean Statistical Society*, 1-25, [10.1007/s42952-024-00298-9](https://doi.org/10.1007/s42952-024-00298-9)
 • A summary of this study can be found at [my website](#).

Horse race rank prediction using learning-to-rank approaches (Written in Korean) 2024.04
Junhyoung Chung*, Donguk Shin, Seyong Hwang, Gunwoong Park
 In *Korean Journal of Applied Statistics*, 37(2), 239-253, [10.5351/KJAS.2024.37.2.239](https://doi.org/10.5351/KJAS.2024.37.2.239)
 • A summary of this study can be found at [my website](#).

Projects

Korean National Fire Agency 2024.08 – 2024.12
 • Developed a grid-based prediction model for mountain accidents using a Hurdle model.
 • Improved F1 score by 20 percentage points for binary classification compared to the baseline model.

Healing Paper, Online cosmetic surgery matchmaking platform in South Korea 2022.09 – 2022.12
 • Developed a classification framework for advertisement images by extracting key information with NLP and computer vision.
 • Designed data-driven marketing strategies to effectively promote surgical services based on the framework.

Loadcomplete , Mobile game studio in South Korea	2022.07 – 2022.08
<ul style="list-style-type: none"> • Built churn & LTV prediction models via daily play-pattern clustering. • Estimated user retention by modeling with rational functions and shifted Beta-Geometric (sBG) models. 	
LaundryGo , On-demand laundry service platform in South Korea	2022.03 – 2022.06
<ul style="list-style-type: none"> • Analyzed pricing plans and derived subscription recommendations based on user behavior patterns. • Designed a new pricing plan based on the analysis, which was successfully adopted and implemented. 	

Research Experience

Data Science & Machine Learning Lab. , Seoul National University	2023.06 – present
<ul style="list-style-type: none"> • Graphical models <ul style="list-style-type: none"> – Developed consistent algorithms to discover latent DAG structures with contaminated data. – Extended nonparanormal graphical models to accommodate symmetric distributions by introducing convex ordering. • Optimal transport <ul style="list-style-type: none"> – Proposed statistical algorithms to efficiently estimate continuous Brenier maps for optimal transport using Gaussian approximation. • Applications <ul style="list-style-type: none"> – Integrated a grid-based spatial model and a Hurdle model to predict mountain accidents. – Introduced learning-to-rank approaches to predict rankings in horse racing. 	

Teaching

Leading Teaching Assistant , Core Computing: Thinking with Computers	Fall 2024, Fall 2025
Supporting Teaching Assistant , Statistics	Fall 2025
Supporting Teaching Assistant , Statistics Lab.	Spring 2024
Supporting Teaching Assistant , Basic Computing: First Adventures in Computing	Spring, Fall 2023

Talks

Learning distribution-free anchored linear structural equation models in the presence of measurement error	2025.06
<ul style="list-style-type: none"> • Presented at <i>Korean Statistical Society Conference</i>. 	
Discovering causal structures in privacy-protected and noisy data: Frugality in anchored Gaussian DAG models	2024.11
<ul style="list-style-type: none"> • Presented at <i>Korea-Japan Joint Symposium of Statistics and Data Science</i>. 	
Learning distribution-free anchored linear structural equation models in the presence of measurement error	2024.07
<ul style="list-style-type: none"> • Presented at <i>Joint International Seminar in Collaboration with Kyushu University</i>. 	

Awards and Honors

Presidential Science Scholarship , <i>Korea Student Aid Foundation</i> (Field: Math)	2025.03 - present
Research Scholarship, Basic Science Research Program , <i>National Research Foundation of Korea</i>	2024.09 - 2025.09
3rd Prize, Online Overseas Volunteer Program Contest , <i>Korean University Council for Social Service</i>	2022.03
Undergraduate Scholarship , <i>Ilju Scholarship Foundation</i>	2018.09 - 2024.02

Extracurricular Activities

Tennis Club , Seoul National University	2021.09 - present
Growth Hackers , Business School, Seoul National University	2022.03 - 2022.12
Global SNU Social Responsibility Corps , Seoul National University	2021.06 - 2021.08

Skills

- **Programming:** Python, R, LaTeX
- **Language:** Korean (native), English (fluent), Japanese (conversant)
- **English proficiency scores:**
 - MyBest TOEFL score: Reading 30/30, Listening 28/30, Speaking 23/30, Writing 27/30
 - MyBest GRE score: Verbal 162/170, Quant 170/170, Analytical Writing 4.0/6.0