

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.

Publications

- Prediction of high-risk mountain accident areas using a Hurdle model** (*Written in Korean*) 2025.08
Junhyoung Chung^{*}, Sungjin Lee, Gunwoong Park
In *Korean Journal of Applied Statistics*, 38(4), 531-551, [10.5351/KJAS.2025.38.4.531](#)
- 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](#)
• A summary of this study can be found at [my website](#).
- 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](#)
• 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](#)
• A summary of this study can be found at [my website](#).

Projects

- Korean National Fire Agency**, The central administrative agency of South Korea responsible for firefighting affairs 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
• 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 , Korea Student Aid Foundation (Field: Math)	2025.03 – present
<ul style="list-style-type: none"> Awarded by the President of South Korea to outstanding graduate students in science and engineering. Received a monthly living stipend of ~\$1,500 for one year. 	
Research Scholarship, Basic Science Research Program , National Research Foundation of Korea	2024.09 – 2025.09
<ul style="list-style-type: none"> Received a monthly research fellowship of ~\$1,000 for one year. 	

3rd Prize, Online Overseas Volunteer Program Contest, Korean University Council for Social Service

2022.03

Undergraduate Scholarship, Ilju Scholarship Foundation

2018.09 – 2024.02

- Received full tuition scholarship for 7 semesters.

Extracurricular Activities

Tennis Club, Seoul National University

2021.09 – present

Growth Hackers, Business School, Seoul National University

2022.03 – 2022.12

- Participated in 3 real-world data projects with corporate clients, each securing ~\$2,500 in funding.

Global SNU Social Responsibility Corps, Seoul National University

2021.06 – 2021.08

- Joined an online volunteer program in Laos, serving as a VR team leader to produce VR contents for smart farming and heat illness prevention.

Skills

- **Programming:** Python, R, LaTeX
- **Language:** Korean (native), English (fluent), Japanese (conversant)

English Proficiency Scores

- **MyBest TOEFL score (Total 108/120):** Reading 30/30, Listening 28/30, Speaking 23/30, Writing 27/30
- **MyBest GRE score (Total 332/340):** Verbal 162/170, Quant 170/170, Analytical Writing 4.0/6.0