Minju Hong

RESEARCH INTERESTS

Deep Learning Theory: Large Language Models, Graph Neural Networks

My interests lie in the intersection of mathematics and data sciences. I am interested in deep learning theory, recently understanding the working mechanisms of large language models. I am also interested in applications of graphs, such as GNNs.

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

Mar. 2024 - Present

M.S. in Electrical Engineering

Daejeon, Korea

Advisor: Hyewon Chung

GPA of 3.70/4.3

Korea Advanced Institute of Science and Technology (KAIST)

Mar. 2019 - Feb. 2024

B.S. in Mathematical Sciences & Electrical Engineering (Double Major)

Daejeon, Korea

Technical University of Munich

Apr. 2023 - Sep. 2023

Exchange Student in Mathematics

Munich, Germany

Selected Courses: CIT4230004 Statistical Foundations of Learning, MA4502 Combinatorial Optimization

PUBLICATIONS

(P: Preprint, C: Conference&Journal, W: Workshop&Demos, *: Equal contribution, †: Equal senior role)

[C1] To be added

Minju Hong

Arxiv Preprint.

RESEARCH EXPERIENCE

KAIST Inference and Information for Data Science Lab

Mar. 2024 - Present

Graduate Student, Advised by Dr. Hyewon Chung.

Daejeon, Korea

Research on explaining the order sensitivity of in-context learning in large language models.

(Co-advised by Dr. Chulhee Yun)

TUM Theoretical Foundations of Artificial Intelligence Group

Apr. 2023 - Sep. 2023

Undergraduate Researcher, Advised by Dr. Debarghya Ghoshdastidar.

Munich, Germany

Research on misinformation mitigation and successful blocker selection algorithms.

MAS467 Introduction to Mathematical Biology

Sep. 2023 - Dec. 2023

Course Term Project, Advised by Dr. Jaekyung Kim.

Daejeon, Korea

Shedding Light on Combined Multiple Transcriptional Repression Mechanisms with Cell Cycle Dynamics.

KAIST Inference and Information for Data Science Lab

Mar. 2021 - Dec. 2022

Undergraduate Researcher, Advised by Dr. Hyewon Chung.

Daejeon, Korea

Research on random graph matching algorithms.

HONORS AND AWARDS

Doo-Myeong Undergraduate Scholarship

Spring 2020

Awarded to one student from the Department of Mathematics, Class of 2023

A merit-based scholarship granted by the Miwon Group.

National Science and Engineering Undergraduate Scholarship

Spring 2019

Merit-based scholarship awarded by Korea Student Aid Foundation.

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Leadership Mileage Certificate, KAIST

2019

Honor for top 3% among 3,600+ students with top achievements in leadership activities including volunteering and campus activities.

TEACHING EXPERIENCE

Probability and Probabilistic Processes (EE210)

Spring 2025

Teaching Assistant at KAIST (Instructor: Dr. Hyewon Chung)

SERVICES

Academic Services

• Reviewer: -

Outreach and Leadership

• Student Representative Committee of the School of Electrical Engineering

Aug. 2024 - Feb. 2025

Organized talks and social events for 400+ members in the KAIST EE graduate community.

• Student Council Representative of the Department of Mathematical Sciences Mar 2021 - Feb. 2023 Designed and managed open labs and mentoring sessions for 100+ KAIST Mathematical Sciences undergraduates.

INVITED TALKS

To be added

SKILLS

Languages: English (*Highly proficient*), Korean (*Native*)

TOEFL 117/120 (R30/L30/S30/W27)

Programming Languages: Python, MATLAB

EXTRACURRICULAR ACTIVITIES

Concertmaster in KAIST Orchestra

Jan. 2020 - Dec. 2021

Led the 80+ orchestra members in inhancing its musicality, designing and managing the chamber music program and relay-playing challenge event during Covid.

KAIST International Challengers for the Integration of Science, Technology, and Society

Sep. 2019 - Feb. 2021

Planned and executed social events and KAIST Open tournament as an event committee chair.

KAIST World-Friends ICT Volunteers Tanzania

Jul. 2019 - Aug. 2019

Last update: February 19, 2025

Organized workshops on ICT technology at universities and high schools, and mentored students at Arusha, Tanzania.

REFERENCES

Hyewon Chung, Associate Professor at KAIST

Email: hwchung@kaist.ac.kr

Chulhee Yun, Assistant Professor at KAIST

Email: chulhee.yun@kaist.ac.kr