

## CONTACT INFORMATION

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Graduate School of Data Science  
Seoul National University  
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[taehyunable.com](https://taehyunable.com)

## RESEARCH INTERESTS

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Sequential decision making, Statistical machine learning, Optimization for Machine Learning

## EDUCATION

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**Seoul National University** Mar. 2020 - **Present**  
Ph.D Candidate in Data Science  
Advisor: Min-hwan Oh

**Sungkyunkwan University** Sept. 2016 - Aug. 2018  
M.S in Mathematics  
Advisor: Yongdo Lim / Co-advisor: Rhee Man Kil  
Thesis: Combination of Gaussian Kernel Function Networks for Traffic Flow Prediction

**Kyungpook National University** Mar. 2010 - Aug. 2016  
B.S in Mathematics (Graduated with the highest honor)  
Minor: Business Administration

## EXPERIENCE

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- **The Research Institute of Basic Science, Sungkyunkwan University**  
Research Assistant Sept. 2018 - Feb. 2020

## PUBLICATIONS (\* denotes equal contribution)

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- [4] **Combinatorial Neural Bandits.**  
**Taehyun Hwang\***, Kyuwook Chai\*, and Min-hwan Oh  
*To appear, International Conference on Machine Learning (ICML), 2023*  
• Outstanding Paper Award, Korean Artificial Intelligence Association 2022 Summer Conference
- [3] **Model-based Reinforcement Learning with Multinomial Logistic Function Approximation.**  
**Taehyun Hwang** and Min-hwan Oh  
*Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI), 2023.*  
• Oral presentation in main technical session
- [2] **Deep Learning Aided Evaluation for Electromechanical Properties of Complexly Structured Polymer Nanocomposites.**  
Kyungmin Baek, **Taehyun Hwang**, Wonseok Lee, Hayoung Chung, and Maenghyo Cho  
*Composites Science and Technology, 109661, 2022.*
- [1] **Estimation of Jamming Parameters based on Gaussian Kernel Function Networks.**  
**Taehyun Hwang**, Rhee Man Kil, Hyun Ku Lee, Jung Ho Kim, Jae Heon Ko, Jeil Jo, and Junghoon Lee  
*Journal of the Korea Institute of Military Science and Technology 23 (1), 1-10, 2020.*

## INDUSTRIAL PROJECTS

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- Development of Analysis Model to Explore Test Process Equipment Combination and Improve Flexible Test Performance.  
Director: Prof. Min-hwan Oh Mar. - Sep. 2022  
Funded by *SK hynix*
- A Study on the Algorithms for Estimating the Parameters of Autonomous Jamming Technique.  
Director: Prof. Rhee Man Kil Apr. - Dec. 2018  
Funded by *Agency for Defense Development* and *LIG Nex1*

- An Industrial Problem Solving Project Using Mathematical Data Analysis.

Director: Prof. Yongdo Lim

Funded by *National Institute for Mathematical Sciences*

May. - Sept. 2017

## TALKS

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*“Neural Contextual Bandits from Single Action to Combinatorial Actions”*

- SK Telecom Market Top AI Course, SK Telecom Tower

July 2023

*“Model-based Reinforcement Learning with Multinomial Logistic Function Approximation”*

- KDMS 2023 Summer Conference, Gangneung-Wonju National University
- AAAI 2023, Washington D.C.
- KAIA & NAVER 2022 Fall Conference, NAVER 1784 (Seungnam)
- INFORMS 2022 Annual meeting, Indianapolis

June 2023

Feb. 2023

Nov. 2022

Oct. 2022

*“Combinatorial Neural Bandits”*

- KDMS 2022 Summer Conference, Busan
- KAIA 2022 Summer Conference, Jeju
- INFORMS 2021 Annual meeting, Anaheim (Virtual)

Aug. 2022

Aug. 2022

Oct. 2021

*“A Gaussian Kernel Function Network for Traffic Flow Prediction”*

- KMS 2019 Annual meeting, Hongik University

Oct. 2019

*“Mathematics and Machine learning”*

- Special lecture for undergraduate students, Kongju National University

Sept. 2019

## SCHOLARSHIPS AND AWARDS

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- **Outstanding Paper Award**, Korean Artificial Intelligence Association
- **AAAI Student Scholarship**, AAAI
- **Outstanding Paper Award**, Korean Artificial Intelligence Association

July 2023

Feb. 2023

Aug. 2022

## TEACHING EXPERIENCE

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- **Teaching Assistant** at Seoul National University  
*Data Science & Reinforcement Learning, Foundation of Data Science, Math for Data Science*
- **Teaching Assistant** at Sungkyunkwan University  
*Calculus I/II, Linear Algebra, Discrete Mathematics, Topics in Algebra (Lie Algebra)*

## ACADEMIC SERVICES

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- **Conference Reviewer**  
ICML 2023  
NeurIPS 2022, 2023