Taehyun Hwang

CONTACT INFORMATION

Graduate School of Data Science   th.hwang@snu.ac.kr
Seoul National University
1 Gwanak-ro, Gwanak-gu, Seoul, South Korea, 08826

RESEARCH INTERESTS

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

EDUCATION

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

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

PREPRINT PAPERS (* denotes equal contribution)

[1] **Combinatorial Neural Bandits**
   Taehyun Hwang*, Kyuwook Chai*, and Min-hwan Oh
   Under review
   - Best Paper Award winner, Korean Artificial Intelligence Association 2022 Summer Conference
   - The 1st GSDS InnoJam Poster Awards, Seoul National University

PUBLICATIONS (* denotes equal contribution)

[3] **Model-based Reinforcement Learning with Multinomial Logistic Function Approximation.**
   Taehyun Hwang and Min-hwan Oh
   *Proceedings of the 37th AAAI Conference on Aritificial 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.

PROJECTS

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)   May. - Sept. 2017
Funded by National Institute for Mathematical Sciences

TALKS

"Model-based Reinforcement Learning with Multinomial Logistic Function Approximation"
KAIA & NAVER 2022 Fall Conference, NAVER 1784 (Seungnam)   November 2022
INFORMS 2022 Annual meeting, Indianapolis   October 2022

"Combinatorial Neural Bandits"
KDMS 2022 Summer Conference, Busan   August 2022
KAIA 2022 Summer Conference, Jeju   August 2022
INFORMS 2021 Annual meeting, Anaheim (Virtual)   October 2021

"A Gaussian kernel function network for traffic flow prediction"
KMS 2019 Annual meeting, Hongik University   Oct. 26, 2019

"Mathematics and Machine learning"
Special lecture for undergraduate students, Kongju National University   Sept. 24, 2019

SCHOLARSHIPS AND AWARDS

- AAAI Student Scholarship, AAAI   Feb. 2023
- Best Paper Award, Korean AI Association Conference   Aug. 2022
- GSDS InnoJam Poster Awards, Seoul National University   Mar. 2021

TEACHING EXPERIENCE

- **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

- **Program Committee & Reviewer**
  ICML 2023, NeurIPS 2022