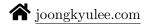
Joongkyu Lee



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Research Interests

Sequential Decision Making, Reinforcement Learning, Bandit Algorithms, Statistical Machine Learning, Optimization

EDUCATION

Seoul National University, Seoul, South Korea

Mar. 2023 - Present

Ph.D Candidate in Data Science, Advisor: Min-hwan Oh

Seoul National University, Seoul, South Korea

Feb. 2023

M.S. in Data Science, Advisor: Min-hwan Oh

Yonsei University, Seoul, South Korea

Feb. 2016

B.S. in Industrial Engineering

Publications

[6] Improved Online Confidence Bounds for Multinomial Logistic Bandits

J. Lee and M. Oh

International Conference on Machine Learning (ICML), 2025

[5] Combinatorial Reinforcement Learning with Preference Feedback

J. Lee and M. Oh

International Conference on Machine Learning (ICML), 2025

[4] Nearly Minimax Optimal Regret for Multinomial Logistic Bandit (Top 0.2%, 32/15671)

J. Lee and M. Oh

Neural Information Processing Systems (NeurIPS), 2024.

[3] Randomized Exploration for Reinforcement Learning with Multinomial Logistic Function **Approximation**

W. Cho, T. Hwang, J. Lee and M. Oh

Neural Information Processing Systems (NeurIPS), 2024.

[2] Demystifying Linear MDPs and Novel Dynamics Aggregation Framework

J. Lee and M. Oh

International Conference on Learning Representations (ICLR), 2024.

[1] Learning Uncertainty-Aware Temporally-Extended Actions

J. Lee, S. Park, Y. Tang, and M. Oh

AAAI Conference on Artificial Intelligence (AAAI), 2024.

EXPERIENCE

Samsung Electronics | SQL, Python, VBA

Aug. 2018 - Dec. 2020

• Production Management Group at Samsung Electronics DS

Military Service

Mar. 2016 - Mar. 2018

• Republic of Korea Air Force

Industry Projects

New Recipe Generation Using GFlowNets

Jan. 2025 - Present

- Director: Prof. Min-hwan Oh
- Funded by Samyang Roundsquare

Development of Analysis Model to Explore Test Process Equipment Combination

Mar. - Sep. 2022

- Director: Prof. Min-hwan Oh
- Funded by SK hynix

INVITED TALKS & CONFERENCE PRESENTATION

INVITED TALKS & CONFERENCE FRESENTATION	
"Combinatorial Reinforcement Learning with Preference Feedback" • 2024 Korea Data Science Conference, Future Research Award	Nov. 2024
"Nearly Minimax Optimal Regret for Multinomial Logistic Bandit"	
• 2024 INFORMS Annual meeting, Vancouver	Oct. 2024
"Contextual Linear Bandits" and "Deep Reinforcement Learning"	
• SK Telecom Market Top AI Course	Jul Aug. 2023
$"Hierarchical\ Model-Based\ Reinforcement\ Learning\ with\ Linear\ Function\ Approximation"$	
• 2023 Korea Artificial Intelligence Association (KAIA), Best Paper Award	Jul. 2023
• Earlier Version of "Demystifying Linear MDPs and Novel Dynamics Aggregation Frame	work"
"Learning Uncertainty-Aware Temporally-Extended Actions"	
• 2023 Korea Data Mining Society	Jun. 2023
• 2022 INFORMS Annual meeting, Indianapolis	Oct. 2022
• 2022 Korea Artificial Intelligence Association (KAIA)	Aug. 2022
Awards & Scholarships	
Youlchon AI Star Scholarship, Youlchon Foundation (6K USD)	Aug. 2025
BK21 Best Paper Award, BK21 FOUR	Dec. 2024
Future Research Award, K-Data Science Conference	Nov. 2024
Best Paper Award, Korea Artificial Intelligence Association	Jul. 2023
National Excellence Scholarship, Korea Student Aid Foundation (Full Tuition Support)	Mar. 2010 - Feb. 2014
Grants	
NRF Ph.D. Fellowship, National Research Foundation of Korea (18K USD/year)	Sep. 2025 - Aug. 2026
Teaching Experience	
Seoul National University	
Machine Learning & Deep Learning	Spring. 2022
• Data Science & Reinforcement Learning	Fall. 2021