Jaehwan Lee

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Education

KAIST, Graduate School of Data Science
Daejeon, Korea
Feb 2025 – present

Yonsei University, Department of Applied Statistics
Seoul, Korea
Mar 2020 – Feb 2025

Experience

Computational Optimization Methods (COMET) Lab, Graduate Researcher
Supervised by Prof. Changhyun Kwon
Daejeon, Korea
Feb 2025 – present
1 year 1 month

Computational Optimization Methods (COMET) Lab, Undergraduate Researcher
Supervised by Prof. Changhyun Kwon
Daejeon, Korea
June 2024 – Aug 2024
3 months

Systems Modeling And Programming Lab @ Yonsei (SYMPLY), Undergraduate Researcher
Supervised by Prof. Soongeol Kwon
Seoul, Korea
Aug 2022 – June 2024
1 year 11 months

Publications

Supervised Optimization Framework for Charging and Discharging Controls of Battery Energy Storage
IEEE Transactions on Smart Grid, 2024, 15.6: 5610-5621.
Jaehwan Lee, Soongeol Kwon
doi.org/10.1109/TSG.2024.3416369

Projects

Neural Combinatorial Optimization with Decision Transformer Framework
May 2024 – May 2024
Reinforcement Learning Course Team Project
- Tools & technologies: Python, PyTorch, OR-Tools
- Conducted research and led team to design neural combinatorial optimization approach based on decision transformer.

Optimizing Energy Consumption by Integrating Machine Learning and Mathematical Optimization
May 2023 – May 2023
Final Project in ESC 29th
- Tools & technologies: Python, Scikit-learn, Gurobi
- Studied predict-then-optimize methodology for optimal energy consumption scheduling.

Predicting Current Happiness of Seoulites with Happiness Index Data
Oct 2022 – Nov 2022
Final Project in ESC 28th
- Tools & technologies: Python, Scikit-learn, Gurobi
- Studied bayesian statistics and bayesian machine learning for quantifying uncertainty.

Skills

Programming

Tools

Languages

Korean
Native

English
Intermediate

Interests

Optimization

Quantum

Activities

Expanded Statistics Club (ESC), 29th   Yonsei University
                                                           Jan 2023 – June 2023

Expanded Statistics Club (ESC), 28th   Yonsei University
                                                           July 2022 – Dec 2022

Awards

2nd Prize, BIG CONTEST 2023   Dec 2023 – present
- Big Data Analysis with Emerging Technology

4th Prize, BIG CONTEST 2022   Dec 2022 – present
- Big Data Analysis for Innovation

Honors

Academic Honors, Spring 2022   Yonsei University
                                                           Aug 2022 – present

Academic Excellence, Fall 2021   Yonsei University
                                                           Feb 2021 – present