

# 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](https://doi.org/10.1109/TSG.2024.3416369)

May 2024 – May 2024

**Neural Combinatorial Optimization with Decision Transformer Framework**

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:** Python, C++

**Tools:** PennyLane, Qiskit, Gurobi, ORTools

## **Languages**

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### **Korean**

Native

### **English**

Intermediate

## **Interests**

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**Optimization:** Data-driven Optimization, Contextual Optimization, Combinatorial Optimization

**Quantum:** Quantum Machine Learning, Variational Quantum Algorithms, Quantum Optimization

## **Activities**

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### **Expanded Statistics Club (ESC), 29th**

Yonsei University  
Jan 2023 – June 2023

### **Expanded Statistics Club (ESC), 28th**

Yonsei University  
July 2022 – Dec 2022

## **Awards**

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### **2nd Prize, BIG CONTEST 2023**

Big Data Analysis with  
Emerging Technology  
Dec 2023 – present

### **4th Prize, BIG CONTEST 2022**

Big Data Analysis for Innovation  
Dec 2022 – present

## **Honors**

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### **Academic Honors, Spring 2022**

Yonsei University  
Aug 2022 – present

### **Academic Excellence, Fall 2021**

Yonsei University  
Feb 2021 – present