

# JISUN LEE

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## EDUCATION

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- Ph.D.**     **University of California, Berkeley, USA**  
- Industrial Engineering & Operations Research, August 2020 - present (expected May 2025)  
- Advisor: Alper Atamtürk [\[link\]](#)
- M.S.**     **Seoul National University (SNU), Republic of Korea**  
- Industrial Engineering, August 2019  
- Advisor: Kyungsik Lee [\[link\]](#)  
- Thesis: An Approximation Scheme for the Probability Maximizing Combinatorial Optimization Problem [\[link\]](#)
- B.S.**     **Seoul National University (SNU), Republic of Korea**  
- Industrial Engineering, August 2017  
- Thesis: A Study on the Corporate Credit Rating Prediction Model using Convolution Neural Network with Time Series Data

## PAPERS

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- Convex hull of uncapacitated multi-period mixed-integer quadratic optimization**  
Jisun Lee, Andrés Gómez, and Alper Atamtürk. (Working paper, presented at MIP Workshop 2024)
- Cut generation for multi-period mixed-integer quadratic optimization by linking consecutive periods**  
Jisun Lee and Alper Atamtürk. (Working paper)
- Efficient sampling from  $\epsilon$ -optimality solution set** [\[pdf\]](#)  
Jisun Lee, Alper Atamtürk, and Ignacio Aravena Solís. (Working paper)
- Strong formulations for hybrid model predictive control** [\[pdf\]](#)  
Jisun Lee, Hyunki Im, and Alper Atamtürk.  
(Preprint, presented at MIP Workshop 2023, INFORMS 2023, SIAM Optimization Conference 2023)
- A fully polynomial time approximation scheme for the probability maximizing shortest path problem** [\[pdf\]](#)  
Jisun Lee, Seulgi Joung, and Kyungsik Lee. European Journal of Operational Research, 2022.

## PRESENTATION

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- 2024 Mixed Integer Programming Workshop, Kentucky, USA.** [\[poster\]](#)  
- Strong formulation of hybrid control problem with tridiagonal inverse matrix.
- 2019 European Conference on Operational Research, Dublin, Ireland.** [\[slides\]](#)  
- An approximation scheme of the probability maximizing combinatorial optimization problem.
- 2019 Fall Conference of Korean Institute of Industrial Engineers, Seoul, Republic of Korea.**  
- A fully polynomial time approximation scheme for the probability maximizing shortest path problem.
- 2019 Spring Conference of Korean Institute of Industrial Engineers, Seoul, Republic of Korea.**  
- An approximation scheme of the probability maximizing combinatorial optimization problem.

## TEACHING ASSISTANT

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IEOR 262A <b>Mathematical Programming I</b>	UC Berkeley, Fall 2024
IEOR 165 <b>Engineering Statistics, Quality Control, and Forecasting</b>	UC Berkeley, Spring 2024
IEOR 142 <b>Introduction to Machine Learning and Data Analytics</b>	UC Berkeley, Spring 2023

## RESEARCH INTEREST

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- Integer Programming, Combinatorial Optimization, Convex Optimization
- Applications: Statistical Learning, Control Optimization
- Optimization Under Uncertainty: Stochastic Optimization, Robust Optimization

## SKILLS

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Programming Language: Python, Java, C++

Modeling & Analysis Tool: Gurobi, Mosek, Xpress, CPLEX, Drake, MPI, MATLAB, R, Arena

## HONORS & AWARDS

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**Bonder Scholarship**, Seth Bonder Foundation, 2024.

**Exellence Prize (3rd Prize) in KIIE Master's Thesis Competition**, 2019.

**Brain Korea 21 Plus Scholarship**, 2018.

**National Scholarship for Science & Engineering**, Korea Student Aid Foundation, 2016.

**SNU Scholarship for Academic Achievement**, 2015.

**Uisan Engineering Scholarship**, 2014.

**4th Prize in SNU Big Data Institute 2nd Datathon**, 2014.