Jangwon Park

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Contact

Department of Mechanical and Industrial Engineering
University of Toronto, Toronto, ON, Canada
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Education

University of Toronto 2021 – Present
Ph.D., Operations Research
Advisors: Timothy C. Y. Chan, Vahid Sarhangian

École Polytechnique Fédérale de Lausanne 2018 – 2020
MSc., Management of Technology
Advisors: Daniel Kuhn, Evangelos Vrettos

University of Toronto 2013 – 2018
BASc., Engineering Science
Advisor: Chi-Guhn Lee

Research Interests

stochastic modeling and control, applied machine learning, healthcare operations management, public policy

Working Papers

Note: Authors are listed alphabetically

Optimal dynamic transfer policies for parallel queues
Timothy C. Y. Chan, Jangwon Park, Vahid Sarhangian
In preparation, 2023

Optimizing inter-hospital patient transfer decisions during a pandemic: a queueing network approach
Timothy C. Y. Chan, Jangwon Park, Frances Pogacar, Vahid Sarhangian
Under revision

Evolution of the surgical procedure gap during and after the COVID-19 pandemic in Ontario, Canada: a cross-sectional and modeling study
Timothy C. Y. Chan, Jangwon Park, Vahid Sarhangian, Rachel Stephenson
Under review

Published Papers

Trends in Short-Term Renewable and Load Forecasting for Applications in Smart Grid
Deepa Kundar, Dongchan Lee, Jangwon Park
Smart City 360 (2016), pp. 292-300

Industry Project

A hybrid optimization approach for employee rostering: Use cases at Swissgrid and lessons learned
Jangwon Park, Evangelos Vrettos

https://arxiv.org/abs/2111.10845

Presentations

"Dynamic Load Balancing in Parallel Queueing Networks"
INFORMS Annual Meeting 2022, Indianapolis, IN, USA

"Dynamic Policies for Inter-Hospital Patient Transfers"
INFORMS Healthcare Conference 2023, Toronto, ON, Canada (scheduled)

Selected Awards

Aacademic and Research

NSERC Canada Graduate Scholarship ($105,000)	2023-26
Ontario Graduate Scholarship ($15,000)	2022-23
6T6 Industrial Engineering 50th Anniversary Award ($3,000)	2021, 2022
Queen Elizabeth II Graduate Scholarship ($15,000)	2021-22
NSERC Undergraduate Student Research Award ($4,500)	2015
University of Toronto Scholars ($5,000)	2013

Professional Experience

Research Intern Mar. 2020 – Oct. 2020
Swissgrid Ltd., Aarau, Switzerland
- Developed a hybrid optimization algorithm for employee scheduling which can solve various instances up to an order of magnitude faster than CPLEX, a commercial solver.
- Created a functional GUI to support the employee rostering model.

Data Analyst May 2016 - Aug. 2017
Celestica International Inc., Toronto, ON, Canada
- Automated the monthly financial reporting process using Sisense and SQL, reducing task completion time from 8 to 2 hours per month.

Research Assistantship

Graduate Research Assistant Apr. 2019 - Nov. 2019
École Polytechnique Fédérale de Lausanne
Collection and processing of longitudinal value-added-tax rates in Europe in MATLAB.

Undergraduate Research Assistant May 2015 - Aug. 2015
University of Toronto
Creation of reusable scripts for power grid analysis in MATLAB.

Teaching Assistantship

Mechanical and Industrial Engineering, University of Toronto

Stochastic Simulation (MIE1613)	Spring 2023
Analytics in Action (MIE368)	Fall 2022

Management, University of Toronto Scarborough

Advanced Business Data Analytics (OD31)	Summer 2022

Other Involvement

Volunteer Jan. 2023 - Present
Statistics Without Borders

Volunteer Researcher Sep. 2017 - Sep. 2018
The Rainmaker Enterprise, Technology Research and Procurement

VP Operations Sep. 2017 - Jun. 2018
NSight, student mentorship program, University of Toronto

Co-founder and President Sep. 2017 - Jun. 2018
We4Others, student organization, University of Toronto

Co-founder and President Jun. 2015 - Aug. 2016
Korean Catholics, student organization, University of Toronto

Volunteer May 2014 - Jul. 2014
Operation Groundswell
Blog post