Jangwon Park

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Contact Department of Mechanical and Industrial Engineering

University of Toronto, Toronto, ON, Canada

Email: jangwon.park@mail.utoronto.ca

Webpages: https://parkjan4.github.io/, LinkedIn

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 stochastic modeling and control, applied machine learning,

Interests healthcare operations management, public policy

Working Note: Authors are listed alphabetically

Papers 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 Trends in Short-Term Renewable and Load Forecasting for Applications

Papers in Smart Grid

Project

Deepa Kundar, Dongchan Lee, Jangwon Park

Smart City 360 (2016), pp. 292-300

Industry 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

Aacademic and Research

Awards

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

Service Session Chair

INFORMS Healthcare Conference (Stochastic Models for Healthcare)

2023

Other Involvement

Volunteer Statistics Without Borders

Sep. 2017 - Sep. 2018

Jan. 2023 - Present

Volunteer Researcher

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