

# XINYUAN ZHANG

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## EDUCATION

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**Sauder School of Business, University of British Columbia**

*2018 - Present*

Ph.D. in Management Science

Advisor: Micheal Jong Kim

**University of Toronto**

*2015 - 2017*

M.A.Sc. in Operations Research, Industrial Engineering

**McGill University**

*2011 - 2014*

B.S.Hons in Mathematics and Physics

## RESEARCH INTERESTS

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**Methodologies:** dynamic programming, statistical learning, Bayesian statistics, data-driven optimization, decentralized control,

**Applications:** data-driven decisions in complex information-sharing environments (misinformation, strategic behavior, bias and fairness), with applications in healthcare analytics, revenue management, and social learning.

## RESEARCH

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### Journal Publications

Keppo, J., Kim, M. J., Zhang, X. (2022). Learning manipulation through information dissemination. *Operations Research*, 70(6), 3490-3510.

❖ Runner-up for INFORMS DAS Best Student Paper Award, 2022

### Working Papers

“Dynamic service allocation with returns: application to admission and discharge control with readmission in hospital” (with Hossein Abouee-Mehrizi, Ya-tang Chuang and Micheal Jong Kim), revise and resubmit to *Management Science*.

“Shortening booking horizon for multi-appointment scheduling: An experimental study for speech-language therapy” (with Hossein Abouee-Mehrizi), manuscript in preparation

“Diversified learning: Bayesian control with multiple biased information sources” (with Jussi Keppo and Micheal Jong Kim), manuscript in preparation.

### Work in Progress

“Optimal feature selection for multi-variate Bayesian control charts ( with Ilbin Lee and Michael Jong Kim), in progress

“Robust data-driven scheduling with multiple follow-up appointments (with Hossein Abouee-Mehrizi), in progress

## PRESENTATIONS

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Diversified learning: Bayesian control with multiple biased information sources.

- MSOM Conference, Montreal June 2023

Learning Manipulation through Information Dissemination.

- INFORMS Annual Meeting, Online October 2021
- INFORMS Annual Meeting, Seattle October 2019
- INFORMS Revenue Management and Pricing Conference, Stanford University June 2019

Dynamic Discharge Control in Capacity-Constrained Systems.

- CORS Annual Conference, Vancouver, June 2022
- CORS Annual Conference, Online. June 2021

The Multi-armed Bandit Problem with Sensor Selection.

- MIE Graduate Symposium, University of Toronto. June 2016

Condition Based Maintenance with Multi-data Types. May 2015.

- C-MORE Annual Consortium, University of Toronto. May 2015

## TEACHING

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### Instructor

Undergraduate Operations & Logistics (COMM 204), UBC Summer 2021

- Teaching evaluation of 4.5/5 (class size: 58)

### Guest Lecturer

Undergraduate Operations & Logistics (COMM 204), UBC Fall 2020, 2022

Graduate Stochastic Processes (MIE 1605H), University of Toronto Winter 2016, 2017

### Teaching Assistant

Graduate Descriptive and Predictive Analytics, UBC Fall 2023

Undergraduate Decision Analysis Under Uncertainty (BAMS 517), UBC Fall 2020

Graduate Analyzing and Modelling Uncertainty (BABS 506), UBC Fall 2019, Fall 2020

Graduate Application of Statistics in Management (BABS 550), UBC Winter 2019

Graduate Operations (BASC 550), UBC Winter 2018, Fall 2020, 2023

Graduate Stochastic Processes (MIE 1605H), University of Toronto, Winter 2015, Winter 2016

Undergraduate Differential Equations (MAT234H) University of Toronto Fall 2015

## SERVICE

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Reviewer for *Operations Research*, *IEEE Transactions on Automatic Control*, *Management Science*, *Healthcare Management Science*

## HONOURS AND AWARDS

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Runner-up for INFORMS DAS Student Paper Award, 2022

President's Academic Excellence Initiative PhD Award 2020, 2021,2022

Shelby L Brumelle Memorial Graduate Scholarship 2018,2022

Dean Earle D MacPhee Memorial Fellowship 2017, 2018, 2019, 2020,2021,2022

Sauder School of Business Graduate Award 2017

Edward and Miriam Silber Memorial Graduate Scholarship 2017

OGS Ontario Graduate Scholarship 2015

MIE Fellowship 2015-2017

NSERC Undergraduate Student Research Award 2013

First Class Honours in Mathematics and Physics 2011-2014