

Ian Yihang Zhu

ianyazhu@nus.edu.sg | ianyzhu.com

Department of Analytics and Operations ◊ NUS Business School

Employment

NUS Business School

Assistant Professor, Department of Analytics and Operations

July 2023 - Present

Education

University of Toronto

Ph.D., Operations Research

2018 - 2023

M.A.Sc., Operations Research

2016 - 2018

University of British Columbia

B.Sc., Mathematics (with Distinction)

2012 - 2016

Research Interests

Data-driven optimization, inverse optimization, incentive design, decision analytics, structural estimation
Transportation and logistics, supply chain analytics, operations management

Completed Papers¹

1. *Inverse Optimization: Theory and Applications*

T.C.Y. Chan, R. Mahmood, I.Y. Zhu

Forthcoming at **Operations Research**.

2. *Got (Optimal) Milk? Pooling Donations in Human Milk Banks with Machine Learning and Optimization*

T.C.Y. Chan, R. Mahmood, D. O'Connor, D. Stone, S. Unger, R.K. Wong, I.Y. Zhu

Forthcoming at **Manufacturing & Service Operations Management**.

- First Place, Pierskalla Best Paper Award 2023
- Runner Up, POMS CHOM Best Paper Competition 2023
- Honorable Mention, CORS Practice Prize 2023
- Finalist, MSOM Practice-Based Research Competition 2023
- Accepted to MSOM Healthcare SIG 2023

3. *Advising Student-Driven Analytics Projects: A Summary of Experiences and Lessons Learned*

A. Babier, C. Fernandes, I.Y. Zhu

INFORMS Transactions on Education (2023) Vol. 23, No. 2: 121-135.

- Featured in OR/MS Today

4. *Spatial Price Integration in Commodity Markets with Capacitated Transportation Networks*

J.R. Birge, T.C.Y. Chan, J.M. Pavlin, I.Y. Zhu

Operations Research (2022) Vol. 70, No. 3: 1739-1761.

- Finalist, MSOM Student Paper Competition 2022
- Finalist, CORS Student Paper Competition 2022
- Featured in Chicago Booth Review

¹All operations research-style journals have alphabetical author ordering.

5. *Inverse Mixed Integer Optimization: Polyhedral Insights and Trust Region Methods*

M. Bodur, T.C.Y. Chan, I.Y. Zhu

INFORMS Journal on Computing (2022) Vol. 34, No. 3: 1471-1488.

- First Place, CORS Student Paper Competition 2022

6. *Predicting Protein and Fat Content in Human Donor Milk Using Machine Learning*

R.K. Wong, M.A. Pitino, R. Mahmood, I.Y. Zhu, D. Stone, S. Unger, D. O'Connor, T.C.Y. Chan

Journal of Nutrition (2021) Vol. 151, No. 7: 2075-2083.**Non-Peer-Reviewed Publications**

1. *Student-Driven Projects: Learning Analytics in a Data-Driven Age*

I.Y. Zhu, C. Fernandes, A. Babier

OR/MS Today (2023) Vol. 50, No. 1.**Teaching Experience**

Analytics in Action (MIE368), University of Toronto

Teaching Assistant, Rated 4.92/5

2021

Recipient of the department's *Teaching Assistant Award (2021-22)*

Teaching Assistant, Rated 4.67/5

2020

Recipient of the department's *Group Teaching Assistant Award (2020-21)***Operations Research II (MIE263), University of Toronto**

Teaching Assistant, Rating N/A (due to COVID-19)

2020

Teaching Assistant, Rated 4.77/5

2019

Selected Talks and Seminars

CMU Tepper, Operations Research Group

2023

University of Montreal, CS & OR Group

2023

NUS Business School, Department of Analytics and Operations

2022

UNC Kenan-Flagler Business School, Operations Group

2022

Northwestern University, Department of IEEMS

2022

CMU Tepper, YinzOR Conference

2022

University of Waterloo, Management Sciences

2022

GERAD and CIRRELT Research Centers

2022

Selected Awards

Academic and Research

First Place, Pierskalla Best Paper Award

2023

Finalist, MSOM Practice-Based Research Competition

2023

Runner Up, POMS College of Healthcare OM Paper Competition

2023

Honorable Mention, CORS Practice Prize

2023

Finalist, MSOM Student Paper Competition

2022

First Place, CORS Student Paper Competition

2022

Queen Elizabeth II Graduate Scholarship in Science and Technology

2022

Ontario Graduate Scholarship

2021

NSERC Canada Graduate Scholarship (Doctoral)

2018 - 2021

NSERC Canada Graduate Scholarship (Master's)

2017

University of Toronto Graduate Entrance Award	2016
NSERC Undergraduate Summer Research Award	2014, 2015
UBC Charles and Jane Banks Scholarship	2014
UBC Trek Excellence Scholarship	2014
UBC Science Scholar	2014
UBC Chancellor's Scholar	2012

Teaching

Teaching Assistant Award (MIE, University of Toronto)	2022
Group Teaching Assistant Award (MIE, University of Toronto)	2021

Personal

Citizenship Canadian

Languages English (native), Mandarin (fluent)

Interests Traveling, sports, reading