

Cong Yang

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EDUCATION

University of British Columbia <i>Ph.D., Candidate in Management Science</i>	<i>2021–2026 (Expected)</i> <i>Vancouver, BC</i>
• Committee: Woonghee Tim Huh (Co-chair), Steven M. Shechter, Hao Zhang (Co-chair)	
• Dissertation Area: Dynamic Decision Making under Uncertainty	
University of California, Berkeley <i>Master of Science, Industrial Engineering and Operations Research</i>	<i>2019</i> <i>Berkeley, CA</i>
University of California, Berkeley <i>Bachelor of Science, Industrial Engineering and Operations Research</i>	<i>2018</i> <i>Berkeley, CA</i>

RESEARCH INTERESTS

Partially Observable Markov Decision Process, Inventory Control, Healthcare Operations Research, Stochastic Optimization, Machine Learning, Data-driven Optimization.

PAPERS

(* indicates first or co-first author. IF indicates the 5-year or latest impact factor for medical journals.)

Partially Observable Markov Decision Process:

- [1] Optimal Control of a Partially Observable Markov Deterioration Process ([link](#))
Cong Yang* and Hao Zhang
Minor Revision in ***Management Science***

Optimization and Learning:

- [2] Optimal Policy for Inventory Management with Periodic and Controlled Resets ([link](#))
Yoon Lee, Yonatan Mintz, Anil Aswani, Zuo-Jun Max Shen, and **Cong Yang**
Manufacturing & Service Operations Management (forthcoming), 2025
- [3] A Nonparametric Learning Algorithm for a Stochastic Multi-echelon Inventory Problem ([link](#))
Cong Yang* and Woonghee Tim Huh
Production and Operations Management 33, no.3: 701-720, 2024
- [4] Optimal Control for Multi-Product Additive Manufacturing Systems
Harry Zhang, **Cong Yang***, Woonghee Tim Huh, Sergii Kravchenko.
Working Paper

Healthcare Operations Research:

- [5] Feasibility of reidentifying individuals in large national physical activity data sets from which protected health information has been removed with use of machine learning ([link](#))
Liangyuan Na, **Cong Yang***, Chi-Cheng Lo, et al
JAMA Network Open, 1(8), e186040-e186040, 2018 (IF: 10.5)
★ Finalists and Honorable Mention at INFORMS Operations Research Prize, 2019
- [6] The Impact of Organ Blood Type Conversion on Kidney Paired Donation: A Simulation and Optimization Study
Cong Yang*, Woonghee Tim Huh, Steven Shechter, James Lan
Major Revision in ***American Journal of Transplantation*** (IF: 8.2)

AWARDS

The University of British Columbia Affiliated Fellowships Doctoral Program <i>This fellowship is awarded annually to approximately 50 doctoral students pursuing full-time research-based degrees at the University of British Columbia in recognition of their outstanding academic record, exceptional background and promising future.</i>	2023
Shelby L. Brumelle Memorial Graduate Scholarship Competition, UBC	2023&2025
President's Academic Excellence Initiative PhD Award, UBC	2021-2025
Dean Earle D MacPhee Memorial Graduate Scholarship, UBC	2021-2025
International Tuition Award, UBC	2021-2025
Finalists & Honorable Mention at INFORMS Undergraduate Student Operations Research Prize	2019

TEACHING EXPERIENCE AND RESEARCH MENTORSHIP

COMM 190: Introduction to Quantitative Decision Making (Undergraduate), UBC

Instructor, Summer 2025

IEOR 240: Optimization Analytics (Master of Engineering), UC Berkeley

Graduate Student Instructor, Fall 2019

IEOR 142: Introduction to Machine Learning and Data Analytics (Undergraduate), UC Berkeley

Graduate Student Instructor, Fall 2019

STAT 2: Introduction to Statistics (Undergraduate), UC Berkeley

Graduate Student Instructor, Summer 2019

BAMS 517: Decision Analysis Under Uncertainty (Master of Business Analytics), UBC

Teaching Assistant, Winter 2022-2025

BABS 506: Analyzing and Modelling Uncertainty (Master of Business Analytics), UBC

Teaching Assistant, Winter 2022-2025

BAMS 523: Managerial Decisions Modelling and Analytics (MBA), UBC

Teaching Assistant, Winter 2025

BAMS 500: Process Fundamentals (Master of Business Analytics), UBC

Teaching Assistant, Winter 2022

COMM 190: Introduction to Quantitative Decision Making (Undergraduate), UBC

Teaching Assistant, Winter 2021-2025

SERVICE AND OUTREACH

Reviewer: Operations Research

TALKS

Optimal Control of a Partially Observable Markov Deterioration Process

- INFORMS 2025 Annual Meeting (October 27, 2025, 4:33 PM–4:51 PM), Atlanta, GA, United States

Exact Solution to a Machine Maintenance Problem with Multiple Unobservable States

- INFORMS 2024 Annual Meeting, Seattle, WA, United States

A Nonparametric Learning Algorithm for a Stochastic Multi-echelon Inventory Problem

- INFORMS 2023 Annual Meeting, Phoenix, AZ, United States

The Impact of Organ Blood Type Conversion on Kidney Paired Donation: A Simulation and Optimization Study

- INFORMS 2023 Healthcare Conference, Toronto, ON, Canada

Feasibility of reidentifying individuals in large national physical activity data sets from which protected health information has been removed with use of machine learning

- INFORMS 2019 Annual Meeting, Seattle, WA, United States
- INFORMS 2019 Healthcare Conference, Boston, MA, United States

SKILLS

Languages | *Fluent:* English; *Native:* Mandarin, Cantonese

Programming | Python, C++, Julia, Matlab, R, SQL

Software Tools | TensorFlow, Gurobi, CAD SolidWorks

REFERENCES

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