

# Cong Yang

cong.yang@sauder.ubc.ca | (+1) 408-497-4379 | <https://congyang-96.github.io>

## EDUCATION

<b>University of British Columbia</b> <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	
<b>University of California, Berkeley</b> <i>Master of Science, Industrial Engineering and Operations Research</i>	<i>2019</i> <i>Berkeley, CA</i>
<b>University of California, Berkeley</b> <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  
Major 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.  
Manuscript in preparation.

*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  
Submitted to ***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

---

### **Woonghee Tim Huh**

Sauder School of Business

University of British Columbia

[Tim.huh@sauder.ubc.ca](mailto:Tim.huh@sauder.ubc.ca)

### **Steven M. Shechter**

Sauder School of Business

University of British Columbia

[steven.shechter@sauder.ubc.ca](mailto:steven.shechter@sauder.ubc.ca)

### **Hao Zhang**

Sauder School of Business

University of British Columbia

[hao.zhang@sauder.ubc.ca](mailto:hao.zhang@sauder.ubc.ca)