

Chengyi Lyu

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EDUCATION

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| University of Colorado Boulder | Boulder, CO, USA |
| Ph.D. in Operations Management | 2025 (Expected) |
| Committee: Dan Zhang (Chair), David Drake, Ozge Sahin (Johns Hopkins), Gloria Urrea, Rui Zhang | |
| The Pennsylvania State University | State College, PA, USA |
| M.S., Industrial Engineering & Operations Research | 2020 |
| University of Science and Technology of China | Hefei, Anhui, China |
| B.S., Mathematics | 2017 |

RESEARCH & TEACHING INTERESTS

Research: Revenue Management and Pricing, Service Operations, Supply Chain Management, Stochastic Modeling and Optimization, Data-Driven Optimization.

Teaching: Operations & Supply Chain Management, Revenue Management, Business Analytics, Statistics.

PUBLICATIONS & PREPRINTS

- Chengyi Lyu and Dan Zhang. Customer Reward Programs for Two-sided Markets. Under review at *Management Science*.
- Chengyi Lyu, Huanan Zhang, and Linwei Xin. UCB-Type Learning Algorithms with Kaplan-Meier Estimator for Lost-Sales Inventory Models with Lead Times. Accepted at *Operations Research*.
- Stefanus Jasin, Chengyi Lyu, Sajjad Najafi, and Huanan Zhang. Assortment Optimization with Multi-Item Basket Purchase under Multivariate MNL Model. *Manufacturing & Service Operations Management*, Vol. 26(1), 215–232, 2024. (Authors are listed alphabetically.)
 - Finalist in POMS-HK 2023 Best Student Paper Competition.
 - Selected for presentation in the MSOM Supply Chain Management SIG, 2023.

WORK IN PROGRESS

- An Analysis of Quest Reward Programs, with Dan Zhang.
- Assortment Optimization for an e-Commerce Platform and Third-Party Retailers, with Ozge Sahin and Dan Zhang.

TEACHING EXPERIENCE

Sole Instructor, University of Colorado Boulder

- Managing Business Processes (Undergraduate) Spring 2022, Fall 2022
 - **Graduate Part-Time Instructor Teaching Recognition Award** (University Award)

Teaching Assistant, University of Colorado Boulder

- Principles of Operations Management Fall 2021

Teaching Assistant, City University of Hong Kong

- Operations Management Spring 2019
- Statistical Model in Economics and Finance Spring 2018
- Business Analytics with Spreadsheet Spring 2018
- Pricing and Revenue Management Fall 2017, Fall 2018

Teaching Assistant, University of Science and Technology of China

- Linear Algebra (B1) Spring 2016
- Analytic Geometry Fall 2016

PROFESSIONAL EXPERIENCE

- Research Scientist II Intern, **Amazon**, Seattle, WA May 2023-Aug 2023
 - The Retail Pricing Science and Research Team
 - Mentored by Pau Pereira and Ozge Sahin
 - Worked on an assortment optimization project with a specific focus on improving ‘Frequently Bought Together’ recommendations and ‘Buy X Get Y Free’ reward programs.
- Research Intern, **Oracle Labs**, Broomfield, CO May 2021-Aug 2021
 - The Modeling, Simulation and Optimization Research Group
 - Mentored by Andrew Vakhutinsky
 - Developed an efficient recommendation system optimizing personalized offers and pricing for rate-grouped room types.
 - Patent application: ORC21134333 (2011-0646US01)
- Teaching and Research Assistant, City University of Hong Kong, Hong Kong, China Sep 2017-May 2019

SERVICES

- Reviewer for *Manufacturing & Service Operations Management*, *Operations Research*, *Production and Operations Management*.
- Reviewer for 2023-2024 CSAMSE Best Paper Competition, 2023-2024 MSOM SIG.
- Session Chair for POMS 2023, INFORMS 2023-2024,

CONFERENCES & TALKS

- Customer Reward Programs for Two-sided Markets
 - INFORMS Annual Meeting, Seattle, Washington (Scheduled) 2024
 - Purdue Operations Conference, West Lafayette, Indiana (Scheduled) 2024
 - INFORMS RMP Section Conference, Los Angeles, California (Scheduled) 2024
 - INFORMS MSOM Conference, Minneapolis, Minnesota (Scheduled) 2024
 - POMS Annual Conference, Minneapolis, Minnesota 2024

- Assortment Optimization with Multi-Item Basket Purchase under Multivariate MNL Model
 - POMS Annual Conference, Orlando, Florida 2023
 - POMS-HK International Conference, Hong Kong 2023
 - INFORMS Annual Meeting, Indianapolis, Indiana 2022
 - INFORMS Annual Meeting, Virtual 2021
- Assortment and Price Optimization under MNL Model with Price Range Effect
 - ACM Conference on Economics and Computation Workshop, Boulder, Colorado 2022
- Efficient UCB-Type Learning Algorithms for Lost-Sales Inventory Models with Lead Times and Censored Demand
 - INFORMS Annual Meeting, Virtual 2020

AWARDS & HONORS

- Gerald Hart Research Fellowship, University of Colorado Boulder 2022, 2024
- University Fellowship Award, University of Colorado Boulder 2020-2023
- Finalist, POMS-HK Best Student Paper Competition 2023
- Graduate Part-Time Instructor Teaching Recognition Award, University of Colorado Boulder 2022
- PhD Fellowship, University of Colorado Boulder 2020-2024
- The College of Business Research Studies Scholarship, City University of Hong Kong 2017
- Outstanding Graduate Award, University of Science and Technology of China 2017
- Outstanding Student Award, University of Science and Technology of China 2014-2016

SKILLS

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| Technical Skills | Python, C, R, MATLAB, SAS, \LaTeX |
| Language | English (fluent), Mandarin (native) |