# JIA LIU

LSK4051, HKUST, Clear Water Bay, HK jialiu@ust.hk +852 2358-7709 (Updated May 2025)

### EDUCATION

### Columbia University, New York, NY

Ph.D. in Marketing, 2017 (Advisor: Olivier Toubia)
M.S. in Marketing, 2011
Michigan State University, East Lansing, MI
M.S. in Statistics, 2010
Tianjin University, Tianjin, China

B.S. in Mathematics, 2008

### ACADEMIC POSITIONS

#### Hong Kong University of Science & Technology, HK

#### School of Business and Management

Associate Professor, Marketing, July 2023 - present Assistant Professor, Marketing, Aug. 2018 - June 2023

#### **School of Engineering**

Affiliated Associate Professor, IEDA, July 2023 - present Affiliated Assistant Professor, IEDA, Jan. - June 2023

#### Affiliations

*Faculty Associate*, HKUST Li & Fung Supply Chain Institute, 2024 - present HKUST Big Data Institute, 2022 - present

### **INDUSTRY EXPERIENCE & EMPLOYMENT**

### International Digital Economy Academy (IDEA), Shenzhen, China

Business Consultant, Dec. 2024 - present

### Meta (previously Facebook), New York, NY

Academic Collaborator, Core Data Science Team, Dec. 2021 - Dec. 2023

### Microsoft Research, New York, NY

*Postdoctoral Researcher*, mentored by Duncan Watts, Aug. 2017 - June 2018 *Research Intern*, mentored by Shawndra Hill, May - July, 2016 *Consulting Researcher*, Computational Social Science Group, February - April, 2016

### Advertising Research Foundation, New York, NY

Research Intern, under the supervision of Dr. William Cook, May - Aug. 2011

# **RESEARCH INTERESTS**

**Substantive:** Online Search, Advertising, Loyalty Programs, Recommendation System, User Generated Content, Social Network, Pricing, Behavioral Economics, Product Assortments, Supply Chain, Big Data Analytics, Generative AI

**Methodological:** Topic Modeling, Natural Language Processing, Machine Learning, Deep/Graph Neural Networks, Bayesian Methods, Causal Inference, Lab/Field Experiments, Optimization

### **PUBLICATIONS**(\*equal authorship; <sup>†</sup>student mentored)

- [8] Liu, Jia, Shawndra Hill, and David Rothschild (2025), "Dynamic Effects of TV Ad Suspension on Keyword Search: Evidence from the U.S. Telecom Industry." *forthcoming at the Journal of Marketing [SSRN] [Paper]*
- [7] Dew, Ryan, Padilla, Nicolas and Luo, Lan E. and Oblander, Shin and Ansari, Asim and Boughanmi, Khaled and Braun, Michael and Feinberg, Fred M. and Liu, Jia and Otter, Thomas and Tian, Longxiu and Wang, Yixin and Yin, Mingzhang (2024), "Probabilistic Machine Learning: New Frontiers for Modeling Consumers and their Choices." *forthcoming at the International Journal of Research in Marketing [SSRN] [Paper]*
- [6] Liu, Jia, and Ziwei Cong<sup>†</sup> (2023), "The Daily Me versus The Daily Others: How Do Recommendation Systems Change User Interests? Evidence from a Knowledge-Sharing Platform." *Journal of Marketing Research*, 60 (4), 767-791. [*Paper*]
  - Featured by *Matter of Facts* Paper Update
  - Featured in "My Journal Read" by American Marketing Association
- [5] Liu, Jia, Olivier Toubia, and Shawndra Hill (2021), "Content-based Model of Web Search Behavior: An Application to TV Show Search." *Management Science*, 67 (10), 6378-6398. [*Paper*]
  - Best paper award at the 2018 China Marketing International Conference
  - Media: HK Economic Times
- [4] Liu, Jia, and Shawndra Hill (2021), "Frontiers: Moment Marketing: Measuring Dynamics in Cross-channel Ad Effectiveness." *Marketing Science*, 40 (1), 13-22. *[Paper]* 
  - One of the first few papers accepted by the Marketing Science Frontiers section
  - Media: HK Economic Times
- [3] Liu, Jia, and Asim Ansari (2020), "Understanding Consumer Dynamic Decision Making Under Competing Loyalty Programs." *Journal of Marketing Research*, 57(3), 422-444. [*Paper*]
- [2] Liu, Jia\*, and Olivier Toubia\* (2020), "Search Query Formation by Strategic Consumers." *Quantitative Marketing and Economics*, 18, 155-194. *[Paper]*

- [1] Liu, Jia, and Olivier Toubia (2018), "A Semantic Approach for Estimating Consumer Content Preferences from Online Search Queries." *Marketing Science*, 37 (6), 930-952.
   [Paper]
  - Appears in INFORMS Analytics Collections "Advances in Integrating AI & O.R."
  - Winner, 2018 John Little award for best marketing paper published in *Marketing Science*, *Management Science*, or other INFORMS journal
  - Finalist, 2018 Frank M. Bass outstanding dissertation award
  - Chosen for INFORMS press release by Editor-in-Chief of Marketing Science

### **WORKING PAPERS**(\*equal authorship;<sup>†</sup>student mentored)

- 1. Liu, Jia, Kohei Kawaguchi, and Tao Li<sup>†</sup> (2025), "Segmenting Consumer Location-Product Preferences for Assortment Localization." *Major revision at Marketing Science* 
  - MSI Working Paper Series, 2024 [Research Recap]
  - Filed US Provisional Patent Application
  - Featured in the 2024 HKUST DeepTech Playbook
- 2. Cong, Ziwei<sup>†</sup>, Jia Liu, and Puneet Manchanda (2025), "From Live to Recording: Consumer Demand and Response to Price Across the Livestreaming Lifecycle." *Major revision at Marketing Science*
- 3. Yin, Mingzhang, Ziwei Cong<sup>†</sup>, and Jia Liu (2025), "Unraveling User Multifaceted Preferences on Content Platform: A Bayesian Deep Learning Approach." *Major revision at Marketing Science*
- 4. Cong, Ziwei<sup>†</sup>, Jia Liu, and Shijie Han<sup>†</sup> (2025), "When Connections Depress Contributions: the Unintended Consequences of Social Filtering." *Major revision at the Journal of Consumer Research*
- Shi, Wen\*, Yujie Qu\*<sup>†</sup>, and Jia Liu\* (2025), "Screening Consumer Complaints for Safety Concerns: A Topic Model for Decision Automation." *R&R at the Journal of Marketing Research*
  - MSI Working Paper Series, 2024 [Research Recap]
  - Filed US Provisional Patent Application
  - Best paper award at the 2024 Asian-Pacific Marketing Academy Conference, 2024
  - Outstanding paper award at the China Marketing International Conference, 2023
  - Runner-up, MSI China Conference Best Paper Award, 2023
- 6. Liu, Jia, and Olivier Toubia (2025), "How Online Search Reflects and Shapes Consumer Preferences: Evidence from a Randomized Experiment." *R&R at Marketing Science*

- 7. Wang, Xuewen<sup>\*†</sup>, and Jia Liu<sup>\*</sup> (2024), "Modeling Consumer Search with Refinement under Non-Compensatory Preference Rules." *R&R at Marketing Science*
- 8. Wang, Wenbo\*, Jia Liu\*, and Xinyi Sun<sup>†</sup> (2024), "Prompt Engineering for Narrative-Content Marketing." *R&R at Marketing Science*
- Han, Tao<sup>†</sup>, Jia Liu, Jingcun Cao (2024), "Two-Birds-One-Stone for Green E-commerce: Business and Environmental Impacts of Delivery Charge on Online Grocery Platform." Under review
- Fang, Jincheng<sup>†</sup>, Jia Liu, Ying Liu, and Jing Wu (2024), "Decoding the Sales Impact of Persuasive Strategies in Livestream Selling." Under review
- Ching, Andrew<sup>\*</sup>, Kohei Kawaguchi<sup>\*</sup>, Jia Liu<sup>\*</sup>, Yi Zhang<sup>\*†</sup> (2024), "Consumer Responses to Favorite Product Removal: Evidence from Beverage Vending Machines." *Preparing for submission*
- Sun, Xinyi<sup>†</sup>, Jia Liu, and Jeehye Christine Kim (2024), "Curbing Toxicity or Curtailing Freedom? The Dual Effects of Limiting Anonymity on Digital Engagement." *Preparing for submission*
- 13. Liu, Jia, Qiaoyang Liu<sup>†</sup>, and Xinyi Sun<sup>†</sup>, "Generating Controllable Visual Stimulus: A Guide for Behavioral Experimental Research." *Preparing for submission*
- 14. Liu, Jia, Asim Ansari, and Leonard Lee (2019), "The Joint Effect of Revenue-based Loyalty Programs and Promotions on Consumer Purchase Behavior." *Empirical study in progress*

### SELECTED WORK IN PROGRESS(\*EQUAL AUTHORSHIP;<sup>†</sup>STUDENT MENTORED)

- 1. Qu, Yujie<sup>†</sup>, Jia Liu, and Wen Shi, "Training Synthetic Experts for Regulatory Efficiency: Data and Methods for Consumer Complaint Screening." *Preparing manuscript*
- 2. Li, Yanjia<sup>†</sup>, Jia Liu, and Tao Li<sup>†</sup>, "Leveraging Generative AI for Assortment Planning with Scarce and Skewed Data." *Empirical study in progress*
- 3. Cao, Jingcun, Tao Han<sup>†</sup>, and Jia Liu, "Fresh Price for the Fresh: Investigating Pricing and Demand Response on Grocery E-commerce Platform." *Empirical study in progress*
- 4. "Creating Global Brands: It Takes More Than Economic Power." with Z. John Zhang and Eden Yin, *Empirical study in progress*

# **BOOK IN PROGRESS**

"From Data to Better Business Decisions: A Practical Guide to Causal Inference."

## PATENTS

Mining Consumer Complaints for Recall Management, No. 63/480,493 Segmenting Consumer Location-Product Preferences for Assortment Localization, No. 63/426,788

# HONORS AND AWARDS

### Research

Best paper award at the 2024 Asian-Pacific Marketing Academy Conference, May 2024 Outstanding paper award at the 2023 China Marketing International Conference, June 2023 Runner-up, Best Paper Award at the 2023 MSI China Conference, April 2023 Winner, Best paper award at the 2018 China Marketing International Conference, July 2018 Winner, 2018 John Little award for best INFORMS Marketing paper, June 2018 Finalist, 2018 Frank M. Bass outstanding dissertation award, June 2018

### Education

Winner, Vitha R. and Saroj V. Rao ISMS Doctoral Dissertation Award (Ziwei Cong), 2021 Runner-up, Shankar-Spiegel Dissertation Proposal Award (Ziwei Cong), 2020 Finalist, American Statistical Association Statistics in Marketing Best Doctoral Dissertation Proposal Competition (Ziwei Cong), 2021

### Career

Marketing Science Institute (MSI) Young Scholar, 2023 Dean's Fellowship, HKUST Business School, 2021 The HKUST Faculty Recognition Award, 2019

Service

Marketing Science Service Awards, 2023

### Prior to Doctoral Graduation

Fellow, AMA Sheth Foundation Doctoral Consortium, 2016
Fellow, Marketing Science Doctoral Consortium, 2015
Fellow, Quantitative Marketing & Structural Econometrics Workshop, Duke University, 2013
Student Representative, UH Annual Doctoral Symposium, University of Houston, 2015
Best Discussant Award, Haring Doctoral Symposium, Indiana University, 2014
Student Representative, Haring Doctoral Symposium, Indiana University, 2014
Luxury Education Foundation Award (US\$14,000), Columbia Business School, 2015
Deming Doctoral Research Fellowship (US\$10,000), Columbia Business School, 2014
Full Graduate Fellowship, Columbia University, 2011-2016
Full Scholarship, Michigan State University, 2008

### GRANTS

- [9] RGC Theme-based Research Scheme (TRS) (HK\$61,191,000), Co-I, "Enhancing Hong Kong's Role in Sustainable Supply Chain Finance via Technology Transformation," T32-615\_24/R, 2025-29
- [8] GRF of HK RGC (**HK\$699,674**), PI, "Modeling the Evolvement of Multi-User Activities on Content Platforms for Data Visualization," No. 16500124, 2024-27
- [7] GRF of HK RGC (**HK\$716,009**), Co-I, "Dynamic Pricing Strategy on Grocery E-commerce Platform: Empirical Study and Field Experiments," No. 17501423, 2023-26
- [6] GRF of HK RGC (**HK\$812,264**), PI, "Search Data for Non-Compensatory Preference Measurements: Model and Experiments," No. 16502722, 2022-25
- [5] General Research Fund (GRF) of HK RGC (HK\$409,993), PI, "Location-Based Market Structure: A Dynamic Analysis of Product Assortment and Consumer Purchase in Panel Data," No. 16501421, 2021-23
- [4] Early Career Grant of HK Research Grants Council (RGC) (HK\$605,992), PI, "Coordinating Search Advertising with TV Advertising for Cross-Channel Optimization," No. 26500019, 2019-22
- [3] Internal Research Support Grant (HK\$320,000), HKUST, 2019-24
- [2] School-based Initiatives (HK\$35,000), HKUST, 2019
- [1] HKUST University Grants Council Block Grant (HK\$100,000), 2018

### **INVITED TALKS**

Peking University, Beijing, May 2025 MSI Online Webinars, Online, April 2025 Dongnan University Forum on Statistics and Big Data, Nanjing, July 2024 CEIBS 30th Anniversary Marketing Symposium, Shanghai, July 2024 Shanghai Jiao Tong University, Shanghai, May 2024 Fudan University, Shanghai, May 2024 Shanghai University of Finance and Economics, Shanghai, May 2024 The University of Texas at Dallas, Dallas, March 2024 The CUHK Shenzhen, School of Data Science, Shenzhen, March 2024 The Chinese University of Hong Kong, DOT, HK, Feb. 2024 HKUST, the ISOM and IEDA Joint Seminar, HK, Feb. 2024 The City University of Hong Kong, the Marketing and MS Joint Seminar, HK, Jan. 2024 University of Melboune, Australia, Nov. 2023 Meta Tech Talk, Online, Nov. 2023 The 12th Triennial Invitational Choice Symposium, France, August 2023 Tsinghua Digital Markets Symposium, Beijing, June 2023 University of Florida, FL, April 2023 (canceled)

Georgetown University, DC, April 2023 New York University, NY, April 2023 George Mason University, Online, Feb. 2023 Cornell Young Scholars Research Camp, Cornell University, NY, May 2022 Facebook NYC Office, Online, May 2022 Indian School of Business, Online, March 2022 Singapore Management University, Online, Feb. 2022 (canceled) Chinese University of Hong Kong, Online, Jan. 2022 The 3rd HKUST Faculty Recognition Ceremony, HK, July 2021 The European Quantitative Marketing Seminar, Online, April 2021 The HKUST Layman Talks, Online, Feb. 2021 Xi'an Jiao Tong University, Online, Nov. 2020 The HKUST Thematic Interdisciplinary Seminar Series, Online, Nov. 2020 The HKUST Business Insights Presentation Series, Online, April 2020 Tsinghua University, Beijing, Nov. 2018 (canceled) Jet.com, NJ, June 2018 Microsoft Research New York Lab, NY, April 2017 University of Oxford, UK, Nov. 2016 National University of Singapore, Singapore, Nov. 2016 Hong Kong University of Science & Technology, Hong Kong, Nov. 2016 Nanyang Technological University, Singapore, Nov. 2016 Dartmouth University, MA, Oct. 2016 Carnegie Mellon University, PA, Oct. 2016 University of Southern California, CA, Oct. 2016 University of Chicago, IL, Oct. 2016 Yale University, NH, Oct. 2016 University of Maryland, College Park, MD, Oct. 2016 Emory University, GA, Sep. 2016 Southern Methodist University, TX, Sep. 2016

### **CONFERENCE PRESENTATION/DISCUSSANT/PANELIST**

The 15th POMS-HK International Conference, HK, January 2025
Marketing Science Conference, Sydney, June 2024
China-Indian Insights Conference, HK, June 2024
Marketing Dynamics Conference, Greece, June 2024
Digital Platforms and Competition Law Conference (by CUHK Law), April 2024 *Panel presentation: "Competitive Advantages of Big Data for Digital Platforms"*Discussant, the Workshop on Platform Analytics, San Diego, April 2024
Biz AI Conference: AI Applications in Business Research, Dallas, March 2024
The 2nd HK Marketing Conference, HK, March 2024
Asia-Pacific Marketing Academy Annual Conference, Guangzhou, Sep. 2023

Panel presentation: "Pathway to A Successful Review Process" The 9th International Forum on Statistics, Beijing, July 2023 Chinese Marketing International Conference, Chengdu, June 2023 Marketing Science Conference, Online, 2022 Theory + Practice in Marketing Conference, Online, 2021 Marketing Science Conference, Online, 2021 NYU-Temple-CMU Conference, Online, 2020 Marketing Science Conference, Online, 2020 Chinese Marketing International Conference, Shanghai, 2018 Marketing Science Conference, Philadelphia, 2018 The 12th Frank M. Bass FORMS Conference, Dallas, 2018 Marketing Dynamics Conference, Hong Kong, 2017 Marketing Science Conference, Baltimore, 2015 UH Annual Doctoral Symposium, Houston, 2015

# **PROFESSIONAL SERVICES**

### **Editorial Review Board**

Journal of Consumer Research, 2025-present Marketing Science, 2022-present Journal of Marketing Research, 2019-present

### **Ad Hoc Reviewer**

Management Science, Marketing Science, Journal of Marketing Research, Journal of Marketing, Manufacturing and Service Operations Management, Production and Operations Management, International Journal of Research in Marketing, Journal of Consumer Psychology

### **Conference/Workshop/Competition**

Council, the China International Marketing Conference (CMIC), 2025 Academic committee, the Asia-Pacific Marketing Academy Annual Conference, 2025 Program committee, QME Conference, 2025 Host, the Women in Marketing Science Lunch, Sydney, June 2024 Academic committee, the Asia-Pacific Marketing Academy Annual Conference, 2023 Reviewer, the MSI's Alden G. Clayton Doctoral Dissertation Proposal Competition, 2022-24 Scientific committee, the Workshop on Platform Analytics, 2023

### HKUST

### School Level

School Research Committee, 2024-present Faculty Representative, the Common Core Course Review Panels, 2023-25 Evaluation Panel for the Sustainable Smart Campus Online Pitch Day, 2023 Department Level Organizer of Annual Marketing Camp, 2022-present Ph.D. Committee Member, 2022-present Faculty Recruiting Committee, 2021-22

#### Others

INFORMS Mentor, 2023-

### TEACHING

| Instructor, HKUST  |                |
|--|----------------|
| Marketing Research (UG)  | 2019 - present |
| Navigating Business Decisions with Data and Causality (Master) | 2023 - present |
| Recitation Instructor, Michigan State University               |                |
| Statistical Methods (UG)                                       | 2009-2010      |

### **Teaching Assistant, Columbia University**

Research to Revenue; Managing Marketing Programs (MBA); Marketing Research (MBA); Managing Marketing Programs (MBA); Introduction to Marketing (Undergraduate); Bayesian Modeling and Computation (Ph.D.); Empirical Methods in Marketing (Ph.D.); Applied Multivariate Statistics (Ph.D.)

#### **Cases and Teaching Notes**

"Asiaray: Managing Space Innovatively" (2023) Authors: Jia Liu and Warren Lee Topics: creative advertising, out-of-home advertising industry Materials: Case and Teaching Note can be accessed at Harvard Business Publishing

### STUDENT ADVISING

#### Ph.D. Thesis Advisor (Placement)

Yanjia Li, HKUST IEDA, incoming Shijie Han, HKUST IEDA, incoming Xinyi Sun, HKUST Marketing, on-going Ziwei Cong, HKUST Marketing, 2022 — (Georgetown University)

### Ph.D. Thesis Committee Member (Placement)

Junjie Han, HKUST (GZ) DSA Siyuan Xia, Shanghai Jiao Tong University, Applied Economics, 2025 Jingling Yu, HKUST Marketing, 2025 Shize Li, HKUST IEDA, 2025 Yao Tian, HKUST CSE, 2025 Jiaxin BAI, HKUST CSE, 2025 Pingchuan Ma, HKUST CSE, 2024
Zhentao Zhang, PolyU DMgt, 2024
Han Xiao, HKUST Accounting, 2024
Chengzhong Liu, HKUST CSE, 2024
Yi Zhang, HKUST Economics, 2024 — (Peking University)
Weiyan Wang, HKUST CSE, 2023 — (Tencent)
Wenliang Dai, HKUST ECE, 2023 — (NVIDIA)
Qiang Zhang, HKUST Marketing, 2019 — (CUHK Shenzhen)

### **M.Phil.** Thesis Advisor

Yanjia Li, HKUST CSE (Co-advising with Huamin Qu), ongoing Xinyi Sun, HKUST Marketing, 2024 Jinghao Jia, HKUST (GZ) Society Hub (Co-advising with Xu Zhang), 2023 Xindie Huang, HKUST Marketing, 2020 Xuewen Wang, HKUST Marketing, 2020

### Ph.D. First-Year Paper Advisor

Hang Xu, HKUST Marketing, 2024

### **DBA** Thesis Advisor

Feng Pan, HKUST — ongoing

### **Visiting Students**

Yujie Qu, Ph.D. Candidate at Central South University, 2024

### **UG Program Corporate Projects**

Decathlon HK, Supercharge Decathlon's Membership Program, HKUST, 2024 Plaza Premium Group, Promoting Global Membership Program, HKUST, 2023 GSK, Effective Marketing Strategy, HKUST, 2021 GSK, Achieving in 5G networks, HKUST, 2021 New World Development, The Digital O2O2O Retail Customer Journey, HKUST, 2021

### **Research Assistants (Placement)**

Ruixuan Zhang, 2024 Hongyu Luo, 2023 — (M.Phil in CS at HKUST) Qiaoyang Liu, 2023-24 — (Ph.D. in Marketing at U. of Florida) Tao Li, 2023-24 — (Ph.D. in Marketing at HKUST) Shiyuan Song, 2023 Mohamed Sobhy, 2022-24 Yi Chen, 2022-23 — (M.S. in Econ at Duke U.) Yue Yu, 2020-23 — (M.Phil in CS at HKUST) Yanjia Li, 2020-23 — (M.Phil in CS at HKUST) Weiyi Ran, 2021 Fall — (Ph.D. in IS at HKUST) Sijun Li, 2019-20 — (Banking Industry) Jiayong Hong, 2019-20 — (Apple Inc.)

# **OP ED ARTICLES AND MEDIA**

"How Data Analytics Are Used in Marketing," School Magazine Biz@HKUST, Jan. 2022