

# ZHEN LIAN

Cornell University  
SC Johnson Graduate School of Management  
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## EDUCATION

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**Cornell University** Aug. 2016 - Present  
*SC Johnson Graduate School of Management* New York, NY

- Candidate for PhD in Operations Management.
- Advisor: Garrett van Ryzin, Li Chen.

**Cornell University** Aug. 2014 - Jan. 2016  
*School of Civil and Environmental Engineering* Ithaca, NY

- M.Eng in Engineering Management.

**Peking University** Sept. 2010 - July 2014  
Beijing, China

- B.S. in Chemistry and Molecular Engineering.
- B.A. in Economics.

## RESEARCH INTERESTS

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Marketplaces, digital economy, market design, smart transportation, public policy

## PUBLICATION

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1. **Lian, Z.**, van Ryzin, G. (2021). Optimal growth in two-sided markets. *Management Science*, 67(11), 6862-6879.

## PAPERS UNDER REVIEW

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2. **Lian, Z.**, van Ryzin, G. (2020). Autonomous vehicle market design. Invited for major revision at *Management Science*.
  - Invited for presentation at Marketplace Innovation Workshop (MIW) 2021.
3. **Lian, Z.**, Martin, S., van Ryzin, G. (2021). Labor cost free-riding in the gig economy. Invited for major revision at *Management Science*.
  - **Job market paper.**
  - Honorable mention, RMP 2021 Jeff McGill Student Paper Award.
  - Invited for presentation at CMU YinzOR 2021.
4. Chen, L., **Lian, Z.**, Yao, S. (2021). Consumer status signaling, wealth inequality and non-deceptive counterfeits. In preparation for submission.

## RESEARCH IN PROGRESS

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5. Delarue, A., **Lian, Z.**, Martin, S. Optimization enables transparent and inclusive policies: Improving school schedules in San Francisco. Targeted at *Operations Research*.
  - Preliminary version presented at MSOM Conference 2021.

## RESEARCH IMPACT & WORK EXPERIENCE

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**San Francisco Unified School District (SFUSD)** December 2020 - Present  
*San Francisco, California*

- *Research partner*

I worked with SFUSD to design an optimization pipeline to **propose new start and end times for all 134 schools** in the district, together with A. Delarue and S. Martin. The proposed schedules have been implemented at SFUSD in the 2021-2022 school year, **saving \$3M per year** in transportation costs.

**Lyft, Inc.**

June 2020 - August 2020

· *Research science intern*

New York, New York

I worked at Lyft's marketplace labs as part of a special team to improve drivers' utilization rates during COVID-19; I conducted data analysis on large-scale trip data and proposed analytical models for drivers' participation. My findings influenced the way the company estimated drivers' earnings.

**TEACHING EXPERIENCE****Managing Operations (MBA core)**

Spring 2021

*Review session instructor*

Online

I developed instructional materials and taught 2-hour lectures biweekly. My lectures include the fundamentals in operations, with a focus on case studies and technical content.

**Operations Management (MBA core)**

Fall 2018

*Teaching assistant*

New York, New York

The course covered operations concepts through examples of e-commerce platforms and urban technology, which inspired me to develop a case study on smart transportation.

**Supply Chain Strategy (MBA elective)**

Spring 2018

*Teaching assistant*

Ithaca, New York

The course covered topics on supply chain management. I graded homework assignments, conducted office hours, and supervised group case studies.

**Managing Operations (MBA Core)**

Spring 2017

*Teaching assistant*

Ithaca, New York

The course focused on spreadsheet modeling. I graded group projects, held office hours, and helped students learn advanced features and tools in Microsoft Excel such as Solver.

**AWARDS AND SCHOLARSHIPS**

- **Women in Operations Research – Bayer Scholarship**, Analytics Society of INFORMS, 2021
- **Bartholomew Family Charitable Fund PhD Student Scholarship**, Cornell University, 2019-2020
- **Byron E. Grote, MS'77, Ph.D.'81 Johnson Professional Scholarship**, Cornell University, 2017-2018
- **Johnson Graduate School of Management Doctoral Fellowship**, Cornell University, 2016-2021

**SELECTED TALKS****Labor Cost Free-Riding in the Gig Economy**

- INFORMS Annual Meeting, Scheduled. Oct. 2021
- Cornell OTIM Workshop, Virtual Sept. 2021
- Cornell ORIE PhD Colloquium, Virtual Sept. 2021
- CMU YinzOR 2021, Virtual Aug. 2021
- ACM Conference on Economics and Computation (EC'21), Poster session. July 2021
- Columbia PhD Brown Bag, Virtual June 2021
- INFORMS RM&P Section Conference, Virtual. June 2021
- MSOM Conference, Virtual. June 2021

**Autonomous Vehicle Market Design**

- INFORMS RM&P Section Conference, Virtual. June 2021
- MSOM Conference, Virtual. June 2021
- Marketplace Innovation Workshop, Virtual. May 2021
- POMS Conference, Virtual. May 2021
- INFORMS Annual Meeting, Virtual. Nov. 2020
- OTIM Workshop, Cornell Johnson, Ithaca, NY. Mar. 2020
- INFORMS Annual Meeting, Seattle, WA. Oct. 2019

**Optimal Growth in Two-Sided Markets**

- INFORMS RM&P Section Conference, Stanford GSB, Palo Alto, CA. June 2019
- Sharing Economy Seminar, NYU Stern, New York, NY. Mar. 2019
- OTIM Workshop, Cornell Johnson, Ithaca, NY. Feb. 2019
- INFORMS Annual Meeting, Phoenix, AZ. Oct. 2018

**Consumer Status Signaling, Wealth Inequality and Non-deceptive Counterfeits**

- INFORMS Annual Meeting, Seattle, WA. Oct. 2019
- POMS Conference, Washington DC. May 2019

**SERVICE**

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Reviewer for *Management Science*.

**SKILLS**

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Julia, Python, MATLAB, SQL, AMPL, STATA

**REFERENCES**

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**Dr. Garrett van Ryzin**

Distinguished Scientist  
Amazon

✉ garrett.vanryzin@gmail.com

**Dr. Li Chen**

Breazzano Family Term Professor of Management  
Cornell University

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**Dr. Sébastien Martin**

Assistant professor  
Northwestern University

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