

# SÉBASTIEN MARTIN

FEBRUARY 2024 – MY WEBSITE CONTAINS MORE INFORMATION AND IS ALWAYS UP-TO-DATE

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## ACADEMIC APPOINTMENTS

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- 2020-Present** | **Kellogg School of Management**, Northwestern University, Evanston, IL, USA  
Assistant Professor of Operations
- 2019-2020** | **Lyft Inc.**, New York City, NY, USA  
Post-doctoral Fellow, Marketplace Labs

## RESEARCH INTERESTS

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Interface of **optimization, mathematical modeling, transportation, and public policy.**

## EDUCATION

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- 2014-2019** | **Ph.D. in Operations Research**, Massachusetts Institute of Technology, Cambridge, MA
- 2011 - 2015** | **B.Sc. / M.Sc. in Applied Mathematics**, Ecole Polytechnique, Paris, France

## PUBLISHED AND AVAILABLE WORK

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*In decreasing order of latest update. Links to papers and works in progress are available on my website.*

I. Lobel, S. Martin, H. Song (2024) Employees versus Contractors: An Operational Perspective. **To Appear, MSOM *Frontiers in Operations***

I. Lobel, S. Martin (2024) Detours in Shared Rides. **To Appear, Management Science**

F. Castro, J. Gao, S. Martin (2023) - Human-AI Interactions and Societal Pitfalls. **Submitted to Management Science**

Z. Lian, S. Martin, G. van Ryzin (2023) Labor Cost Free-Riding in the Gig Economy. **Major revision, Management Science**

- S. Martin, S. Taylor, J. Yan (2023) Trading Flexibility for adoption: Dynamic versus static walking in ridesharing. **Major Revision, Management Science**
- A. Delarue, Z. Lian, S. Martin (2023) Algorithmic Precision and Human Decision: A Study of Interactive Optimization for School Schedules. **R&R, Management Science**
- S. Martin and 10+ Lyft collaborators (2023) A better match for everyone: Reinforcement Learning at Lyft. With Xabi Azagirre, Akshay Balwally, Guillaume Candeli, Nicholas Chamandy, Benjamin Han, Alona King, Hyungjun Lee, Martin Loncaric, Sébastien Martin, Vijay Narasiman, Tony Qin, Baptiste Richard, Sara Smoot, Sean Taylor, Garrett van Ryzin, Di Wu, Fei Yu, Alex Zamoshchin  
**INFORMS Journal on Applied Analytics -- 2023 Franz Edelman Finalist.**
- F. Castro, J. Gao, S. Martin (2023) Autonomous Vehicles in Ride-Hailing and the Threat of Spatial Inequalities. **To be submitted to MSOM**
- S. Chopra, P. Mishra, K. Smilowitz (2023) Mobility-on-Demand Meets Shuttles on the Same Mile. **To be submitted**
- F. Castro, J. Gao, S. Martin (2022) Supply Prioritization in Hybrid Marketplaces. **To be submitted**
- B.Han, H. Lee, S. Martin (2022) Real-Time Rideshare Driver Supply Values using Online Reinforcement Learning. **KDD 2022.**
- V. Krishnan, R. Iglesias, S. Martin, V. Pattabhiraman, S. Wang, G. van Ryzin (2022) Solving the ride-sharing productivity paradox: Priority dispatch and optimal priority sets. **INFORMS Journal on Applied Analytics -- Finalist, Daniel H. Wagner Prize.**
- D. Bertsimas, A. Delarue, W. Eger, J. Hanlon, S. Martin (2020) Bus Routing Optimization Helps Boston Public Schools Design Better Policies. **INFORMS Journal on Applied Analytics -- 2019 Franz Edelman Finalist.**
- D. Bertsimas, A. Delarue, S. Martin (2020), Optimizing schools' start time and bus routes. **Proceedings of the National Academy of Science (PNAS)**
- D. Bertsimas, A. Delarue, P. Jaillet (2019), The Price of Interpretability. **arXiv**
- D. Bertsimas, P. Jaillet, S. Martin (2019), Online Vehicle Routing: The Edge of Optimization in Large-Scale Applications. **Operations Research**
- D. Bertsimas, A. Delarue, P. Jaillet, S. Martin (2019), Travel Time Estimation in the Age of Big Data. **Operations Research**
- J. Reilly, S. Martin, M. Payer, A. Bayen (2016), Creating complex congestion patterns via multi-objective optimal freeway traffic control with application to cyber-security. **Transportation Research Part B**

## PROFESSIONAL EXPERIENCE

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|-------------|---|
| 2019 - 2020 | <b>Lyft, Inc.</b> , San Francisco, CA. <i>Postdoctoral Fellow</i>     |
| 2016        | <b>Google</b> , Mountain View, CA. <i>Software Engineering Intern</i> |

## SELECTED HONORS

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| 2023 | <b>Franz Edelman Award laureate (with Lyft)</b>   |
| 2021 | <b>Wagner Award Finalist</b>  |
| 2019 | <b>George B. Dantzig Dissertation Award (First Place)</b><br><b>TSL Dissertation Prize</b><br><b>Franz Edelman Award laureate (with Boston Public School)</b> |
| 2018 | <b>Doing Good With Good OR (Second Place)</b>   |

## MEDIA

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My research has been featured in the Wall Street Journal, the Boston Globe, the World Economic Forum, Fortune China, Exame (Brazil), América Economía (South America), the UCLA Anderson Review, NPR Boston, Kellogg Insight, SIAM News, the Montreal AI Ethics Institute, ORMS Today and others. Links and details available on my website.