

Lennart Baardman

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Employment

University of Michigan, Ross School of Business , Ann Arbor, MI <i>Assistant Professor of Technology and Operations</i>	2019–Present
Massachusetts Institute of Technology , Cambridge, MA <i>Research and Teaching Assistant</i>	2014–2019
Adobe Systems Incorporated , San Jose, CA <i>Data Scientist Intern</i>	2017
ABN AMRO Commercial Finance N.V. , 's Hertogenbosch, Netherlands <i>Data Scientist Intern</i>	2013
University of Groningen , Groningen, Netherlands <i>Research and Teaching Assistant</i>	2011-2013

Education

Massachusetts Institute of Technology , Cambridge, MA PhD in Operations Research, Operations Management track. Thesis: <i>Analytics in Promotion Planning and Advertising</i> Advisor: Prof. Georgia Perakis	2014–2019
University of Cambridge , Cambridge, United Kingdom MASt in Mathematics. Thesis: <i>Applicable Combinatorial Auctions</i>	2013-2014
University of Groningen , Groningen, Netherlands BSc in Econometrics and Operations Research, summa cum laude. Thesis: <i>Multiple Traveling Salesman Problem with Equal Visits: An Application to AS/RS Scheduling</i> Advisor: Prof. Kees Jan Roodbergen	2010-2013

Research Papers

1. L. Baardman, K.J. Roodbergen (2016). Job Sequencing in a Miniload System. *14th IMHRC Proceedings, Karlsruhe*.
2. L. Baardman, I. Levin, G. Perakis, D. Singhvi (2018). Leveraging Comparables for New Product Sales Forecasting. *Production and Operations Management* 27(12):2339-2349.
 - First place in POMS Applied Research Challenge (2018)
 - First place in POMS College of Supply Chain Management Best Student Paper Award (2018)

- Honorable mention in MIT Operations Research Center Best Student Paper Competition (2018)
3. L. Baardman, M.C. Cohen, K. Panchamgam, G. Perakis, D. Segev (2019). Scheduling Promotion Vehicles to Boost Profits. *Management Science* 65(1):50-70.
 - First place in INFORMS Service Science Cluster Best Paper Award (2016)
 4. L. Baardman, K.J. Roodbergen, H.J. Carlo, A.H. Schrotenboer (2021). A Special Case of the Multiple Traveling Salesman Problem in End-of-aisle Picking Systems. *Transportation Science* 55(5):1151-1169.
 5. L. Baardman, M.C. Cohen, K. Panchamgam, G. Perakis (2021). Using Business Analytics to Upgrade Sales Promotions. *Management and Business Review* 1(3):54-63.
 6. L. Baardman, S. Borjian Boroujeni, T. Cohen-Hillel, K. Panchamgam, G. Perakis (2023). Detecting Customer Trends for Optimal Promotion Targeting. *Manufacturing & Service Operations Management* 25(2):448-467.
 - First place in POMS College of Supply Chain Management Best Student Paper Award (2019)
 - Honorable mention in MSOM Practice-Based Paper Competition (2019)
 - Finalist in INFORMS Innovative Applications in Analytics Award (2020)
 - Finalist in INFORMS Service Science Cluster Best Paper Award (2019)
 - Finalist in INFORMS Social Media Analytics Best Student Paper Award (2019)
 - Finalist in POMS-JD.com Best Data-Driven Research Paper Competition (2019)
 7. L. Baardman, C. Rares, G. Perakis, D. Singhvi, O. Skali Lami, L. Thayaparan (2023). The Role of Optimization in Some Recent Advances in Data-Driven Decision-Making. *Mathematical Programming* 200:1-35.

Papers under Review

8. L. Baardman, K. Panchamgam, G. Perakis. Pass-through Constrained Vendor Funds for Promotion Planning. Major revision in *Manufacturing & Service Operations Management*.
9. L. Baardman, E. Fata, A. Pani, G. Perakis. Learning Optimal Online Advertising Portfolios with Periodic Budgets. Resubmit to *Operations Research*.
 - Finalist in INFORMS Service Science Cluster Best Student Paper Award (2019)
 - Finalist in George Nicholson Student Paper Competition (2018)
10. L. Baardman, E. Fata, A. Pani, G. Perakis. Dynamic Creative Optimization in Online Display Advertising. Resubmit to *Management Science*.
11. Z. Zhang, H.S. Ahn, L. Baardman. Inventory Ordering and Product Ranking for Online Curation Retailers. Resubmit to *Manufacturing & Service Operations Management*.
12. R. Hu, H.S. Ahn, L. Baardman. Assortment and Fulfillment Optimization in Online Grocery Retail. Submitted to *Management Science*.
13. Z. Zhang, H.S. Ahn, L. Baardman. More Data or Better Data? Impact of Costly Data Collection on the Newsvendor Problem. Major revision in *Management Science*.

Papers in Progress

14. L. Baardman, X. Wang. Managing Product Availability in Rental Subscriptions. Work in progress.
15. R. Yoner, L. Baardman, S. Keppler. Designing School Supply Chains for Efficiency. Work in early stage.
16. R. Hu, H.S. Ahn, L. Baardman. Personalized Learning of Preferences for Box Subscriptions. Work in early stage.

Patents

US20190066128A1 - L. Baardman, S. Borjian Boroujeni, T. Cohen-Hillel, K. Panchamgam, G. Perakis (2019). Computer System and Method to Predict Customer Behavior Based on Inter-Customer Influences and to Control Distribution of Electronics Messages. Application published in February 2019.

Research Presentations

- L. Baardman, H.S. Ahn, Z. Zhang. Costly Data Sampling in the Newsvendor Problem. Presented at INFORMS 2023, MSOM 2024, INFORMS 2024.
- L. Baardman, H.S. Ahn, R. Hu. Assortment and Fulfillment Optimization in Online Grocery Retail. Presented at INFORMS 2023.
- L. Baardman, X. Wang. Improving Product Availability to Reduce Customer Attrition in Clothing Rental Subscriptions. Presented at INFORMS 2022, MSOM 2024.
- L. Baardman. Passing Data Directly into Prescriptive Analytics. Presented at INFORMS 2021.
- L. Baardman, H.S. Ahn, Z. Zhang. Inventory Ordering and Product Ranking for Online Curation Retailers. Presented at Rotterdam School of Management, Erasmus University (2021), Stern School of Business, New York University (2022), INFORMS 2022, INFORMS 2023, Simon Business School, University of Rochester (2024).
- L. Baardman, E. Fata, A. Pani, G. Perakis. Dynamic Creative Optimization in Online Display Advertising. Presented at INFORMS 2020.
- L. Baardman, E. Fata, A. Pani, G. Perakis. Learning Optimal Online Advertising Portfolios with Periodic Budgets. Presented at MSOM 2018, Young Researchers Workshop Cornell ORIE 2018, INFORMS 2018, RMP 2019.
- L. Baardman, S. Borjian Boroujeni, T. Cohen-Hillel, K. Panchamgam, G. Perakis. Detecting Customer Trends for Optimal Promotion Targeting. Presented at MSOM 2017, INFORMS 2017, RMP 2018, MSOM 2018, INFORMS 2018, POMS 2019, MSOM 2019, INFORMS 2019.
- L. Baardman, I. Levin, G. Perakis, D. Singhvi. Leveraging Comparables for New Product Sales Forecasting. Presented at MSOM 2017, INFORMS 2017, ISB-POMS Workshop 2017, RMP 2018,

MSOM Supply Chain Management SIG 2018, INFORMS Data Mining and Decision Analytics Workshop 2018, INFORMS 2018.

L. Baardman, K. Panchamgam, G. Perakis. Pass-through Constrained Vendor Funds for Promotion Planning. Presented at INFORMS 2016, MSOM 2017, INFORMS 2017.

L. Baardman, M.C. Cohen, K. Panchamgam, G. Perakis, D. Segev. Scheduling Promotion Vehicles to Boost Profits. Presented at ISMP 2015, INFORMS 2015, POMS 2016, RMP 2016, MSOM 2016, INFORMS 2016.

Media

Machine Learning in Retail. *Michigan Ross Insights & Innovation* (2025)

NightSide with Dan Rea – 2/14/25. *WBZ NewsRadio 1030* (2025)

If you're a sucker for 'Free gift with purchase', you might just be a sucker – Here's why. *Huffington Post* (2025)

4 Sneaky ways online retailers trigger you to make impulse purchases. *Huffington Post* (2024)

Episode 203 – Retail in the Age of Amazon and Machine Learning. *Business and Society Podcast* (2023)

How a new MIT recommendation model can help retailers predict customer trends. *MIT Sloan Ideas Made to Matter* (2019)

Teaching

University of Michigan, Ann Arbor, MI

Instructor for *TO 640 Big Data Management Tools and Techniques* (2020 Winter: 4.7/5, 2020 Fall: 4.8/5, 2022 Winter: 4.9/5, 2022 Fall: 4.9/5, 2024 Winter: 4.8/5, 2025 Winter 4.9/5)

Instructor for *MBAN 554 Data Exploration and Visualization* (2022 Fall: 4.9/5, 2024 Fall: 5/5)

Instructor for *MBAN 550 Introduction to Data Programming* (2024 Summer: 4.8/5)

Instructor for *TO 899 Doctoral Seminar Technology and Operations* (2019 Fall: 5/5, 2022 Winter: 5/5)

Advisor for *MBAN Consulting Studio* (2023 Winter: 4.6/5)

Advisor for *Full-Time MBA MAP* (2021 Winter: 4.6/5)

Advisor for *Tauber Internship Projects* (2020, 2021, 2022, 2023, 2024, 2025)

Massachusetts Institute of Technology, Cambridge, MA

Teaching Assistant for *15.764 Data, Models, and Decisions for Executive MBA* (2016 Spring: 6.7/7, 2017 Spring: 6.6/7, 2018 Spring: 6.8/7)

University of Groningen, Groningen, Netherlands

Teaching Assistant for *Hypothesis Testing* (2012 Spring, 2013 Spring)

Teaching Assistant for *Sampling and Estimation* (2012 Spring)

Teaching Assistant for *Multivariate Analysis* (2012 Spring, 2013 Spring)

Teaching Assistant for *Mathematics II for EOR* (2011 Fall)

Teaching Assistant for *Mathematics I for EOR* (2011 Fall)

Academic Service

Reviewer for Operations Research, Management Science, Manufacturing & Service Operations Management, Production & Operations Management, INFORMS Journal on Applied Analytics, INFORMS Journal of Computing, Naval Research Logistics, Transactions on Intelligent Transportation Systems, Mathematics of Operations Research
Session chair at INFORMS and POMS
Co-chair for POMS College of Supply Chain Management Best Student Paper Award (2020)

University of Michigan

TO Hiring Committee (2024)
TO PhD Recruitment Committee (2020, 2021, 2022, 2023)
TO Seminar Coordinator (2023-2025)
Hosmer Series Coordinator (2024-2025)
Business+Tech Workshop Presenter (2021, 2022, 2023)
Business+Tech Datathon Judge (2020, 2021, 2022, 2023, 2024, 2025)

MIT

Operations Management Seminar Student Coordinator (2018)
Operations Research Center Seminar Student Coordinator (2016 Fall)

Students Supervised

Zijin Zhang co-advised with Hyun-Soo Ahn (PhD 2019 – 2025)

- Position: Assistant Professor at Boston College Carroll School of Management

Renjun Hu co-advised with Hyun-Soo Ahn (PhD 2020 – present)
Xuening Wang (MS 2021 – 2023)

- Position: PhD at Massachusetts Institute of Technology

Zequn Chen (MS 2021 – 2023)

- Position: PhD at Dartmouth College

Rana Yoner co-advised with Samantha Keppler (PhD 2024 – present)

Honors

University of Michigan Honored Instructor (2024)
MBAN Neary Teaching Excellence Award (2023)
First place in Tauber Spotlight! Competition (2021)
Finalist in INFORMS Innovative Applications in Analytics Award (2020)
Finalist in INFORMS Service Science Cluster Best Paper Award (2019)
Finalist in INFORMS Service Science Cluster Best Student Paper Award (2019)
Finalist in INFORMS Social Media Analytics Best Student Paper Award (2019)
Honorable mention in MSOM Practice-Based Paper Competition (2019)
Finalist in POMS-JD.com Best Data-Driven Research Paper Competition (2019)
First place in POMS College of Supply Chain Management Best Student Paper Award (2019)
Finalist in George Nicholson Student Paper Competition (2018)
MIT Sloan Excellence in Teaching Award - Outstanding Teaching Assistant (2018)
First place in POMS Applied Research Challenge (2018)
First place in POMS College of Supply Chain Management Best Student Paper Award (2018)
Honorable mention in MIT Operations Research Center Best Student Paper Competition (2018)
First place in INFORMS Service Science Cluster Best Paper Award (2016)

Finalist in Facebook Fellowship (2016)

Finalist in INFORMS Revenue Management and Pricing Practice Award (2015)

Groningen University Fund-100 Prize (2013)

Member of the Honours College of the University of Groningen (2011-2013)

Personal

Citizenship: Netherlands

Languages: Dutch (native), English (fluent), French (basic), German (basic), Spanish (basic)

Programming: Delphi, Gurobi, HTML/CSS, Java, Julia, JuMP, LaTeX, MATLAB, Oracle SQL, Python, R, Stata, Tableau