

# Joren Gijsbrechts

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## SUMMARY

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As an Assistant Professor of Operations Management at Esade Business School, I create algorithms that translate complex datasets into actionable decisions. I also deliver custom talks on AI, analytics, and Supply Chain 4.0.

## EDUCATION

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### University of Antwerp

*B.Sc. & M.Sc. Applied Economics*

Antwerp, Belgium

Sep. 2009 – June 2012

### KU Leuven

*Ph.D. Operations Management*

Leuven, Belgium

Sep. 2016 – August 2020

## ACADEMIC EXPERIENCE

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### Assistant Professor

*Esade Business School, Ramon Llull University*

Sep. 2023 – Present

Barcelona, Spain

- Teaching core Operations and Business Analytics courses.

### Assistant Professor

*Catolica Lisbon School of Business and Economics*

Sep. 2020 – Aug. 2023

Lisbon, Portugal

- Taught core Operations and Business Analytics courses.

### Visiting Scholar

*MIT Sloan School of Management*

Jan. 2023 – March. 2023

Cambridge, Massachusetts

- Joint Research with professor Vivek Farias.

### Visiting PhD student

*Kellogg School of Management*

Sep. 2019 – Dec. 2019

Evanston, Illinois

- Joint Research with professor Jan A. Van Mieghem.

## INDUSTRY EXPERIENCE

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### Advisor, Algorithms

*CurveCatch*

March 2020 – present

Antwerp, Belgium

- CurveCatch is a start-up disrupting the lingerie industry ([www.curvecatch.com](http://www.curvecatch.com)).
- I collaborate with the founding team to design and implement algorithms.

### Supply Chain Analyst

*Procter and Gamble*

June. 2014 – Aug. 2016

Stockholm, Sweden

- Prior to starting my Ph.D., I worked two years in industry.
- Analyses as part of monthly Sales & Operations planning cycle in Nordic market.

## PUBLICATIONS

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### Journal Articles

- **Gijsbrechts J, Van Staden HE.** Where Did the Demand Go? Teaching Demand Censoring with the Newsvendor Challenge. *INFORMS Transactions on Education* (2024). DOI:10.1287/ited.2024.0085
- **Gijsbrechts J, Imdahl C, Boute RN, Van Mieghem J.** Optimal Robust Inventory Management with Volume Flexibility: Matching Capacity and Demand with the Lookahead Peak-Shaving Policy. *Production and Operations Management* 32(11):3357–3373 (2023). DOI:10.1111/poms.14069
- **Gijsbrechts J, Boute RN, Disney SM, Van Mieghem JA.** Volume Flexibility at Responsive Suppliers in Reshoring Decisions: Analysis of a Dual Sourcing Inventory Model. *Production and Operations Management* (2022). DOI:10.1111/poms.13719

- **Gijsbrechts J, Boute RN, Van Mieghem JA, Zhang DJ.** Can Deep Reinforcement Learning Improve Inventory Management? Performance on Dual Sourcing, Lost Sales and Multi-Echelon Problems. *Manufacturing & Services Operations Management* 24(3):1261–1885 (2022). DOI:10.1287/msom.2021.1064
- **Boute RN, Disney SM, Gijsbrechts J, Van Mieghem JA.** Dual Sourcing and Smoothing under Non-Stationary Demand Time Series: Re-shoring with SpeedFactories. *Management Science* 68(2):1039–1057 (2021). DOI:10.1287/mnsc.2020.3951
- **De Moor B, Boute RN, Gijsbrechts J.** A reward shaping approach to improve the applicability of deep reinforcement learning to inventory management. *European Journal of Operational Research* 301(2):535–545 (2021). DOI:10.1016/j.ejor.2021.10.045
- **Boute RN, Gijsbrechts J, van Jaarsveld W, Vanvuchelen N.** Deep reinforcement learning for inventory control: A roadmap. *European Journal of Operational Research* 298(2):401–412. DOI:10.1016/j.ejor.2021.07.016
- **Yee H, Boute RN, Gijsbrechts J.** Synchromodal Planning under Stochastic Travel Times. *Computers in Industry* 125:103367 (2021). DOI:10.1016/j.compind.2020.103367
- **Vanvuchelen N, Gijsbrechts J, Boute RN.** Use of Proximal Policy Optimization for the Joint Replenishment Problem. *Computers in Industry* 119:103239 (2020). DOI:10.1016/j.compind.2020.103239

## Working Papers

- **Farias V, Gijsbrechts J, Khojandi A, Peng T, Zheng A.** Speeding up Policy Simulation in Supply Chain RL. Working paper at MIT. arXiv:2406.01939
- **Bertani N, Gijsbrechts J, Godinho de Matos M, Wagner L.** Reminders in a Resource Scarce Setting: The Case of Mobile Data Consumption. Working paper at Católica Lisbon School of Business & Economics. <https://ssrn.com/abstract=4911622>
- **De Moor B, Boute RN, Gijsbrechts J.** When do Shippers Match? Managing Inventory with Capacitated Discount Opportunities. Paper available upon request.
- **Gijsbrechts J, Olivares Nadal A, Wagner L.** Replenishing a Try-Before-You-Buy Channel in Online Retail. Working paper at Esade, Ramon Llull University.

## Book Chapters

- **Boute RN, Gijsbrechts J, Van Mieghem JA.** Digital Lean Operations: Smart Automation and Artificial Intelligence in Financial Services. In: Babich V, Birge J, Hilary G (eds) *Innovative Technology at the interface of Finance and Operations*. Springer Series in Supply Chain Management, Springer Nature (2021).
- **Gijsbrechts J, Boute RN, Van Mieghem JA, Zhang D.** AI in Inventory Management: The Disruptive Era of DRL and Beyond. Forthcoming chapter in “AI in Supply Chains: Perspectives from Global Thought Leaders,” edited by Maxime C. Cohen and Tinglong Dai, and part of the Springer Series in Supply Chain Management (edited by Prof. Chris Tang).

## TEACHING

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### Current Teaching

<b>Business Analytics</b> <i>Esade Business School – Full-time MBA</i>	2023–present
<b>Supply Chain Management</b> <i>Esade Business School – Full-time MBA</i>	2023–present
<b>Data Science and Operations for Sustainability</b> <i>Esade Business School – MSc Sustainability</i>	2023–present
<b>Simulation, Optimization and Computational Methods</b> <i>Esade Business School – PhD Program</i>	2025–present

## Invited Teaching

<b>Supply Chain 4.0: AI, Data &amp; Smart Decision-Making</b> <i>Antwerp Management School, Antwerp, Belgium – Executive Masterclass</i>	2025–present
<b>Data-driven Decision-Making and Business Analytics –</b> <i>CLSBE, Lisbon, Portugal – Executive-MBA</i>	2022–present
<b>Green Transport and Machine Learning</b> <i>KU Leuven Kortrijk, Belgium – Postgraduate Smart Logistics</i>	2019–present

## Past Teaching

<b>Data-Driven Organizations</b> <i>Esade Business School – Custom Program for GB Foods</i>	2025
<b>Inventory Control and Machine Learning in Supply Chains</b> <i>University of Antwerp, Belgium – Executive Masters Program</i>	2019–2023
<b>Operations Management</b> <i>CLSBE, Lisbon, Portugal – Executive Masters Program</i>	2021–2022
<b>Supply Chain Management</b> <i>CLSBE, Lisbon, Portugal – M.Sc. Business Analytics</i>	2021–2023
<b>Advanced Predictive Analytics</b> <i>CLSBE, Lisbon, Portugal – M.Sc. Business Analytics</i>	2022–2023
<b>Operations Analytics</b> <i>CLSBE, Lisbon, Portugal – M.Sc. Business Analytics</i>	2022–2023
<b>Introduction to Operations Management</b> <i>CLSBE, Lisbon, Portugal – B.Sc. Business Administration and Applied Economics</i>	2020–2023
<b>Data-driven Decision Making and Business Analytics</b> <i>CLSBE, Lisbon, Portugal – B.Sc. Business Administration and Applied Economics</i>	2022–2023
<b>Deep Reinforcement Learning in Inventory Management</b> <i>NYU Stern School of Business, US – PhD Program</i>	2022
<b>Deep Reinforcement Learning in Inventory Management</b> <i>Wharton, US – PhD Program</i>	2022
<b>Impact of Machine Learning on Operations Management</b> <i>Vlerick Business School, Belgium – Supply Chain Bootcamp</i>	2019
<b>ML in Operations Management</b> <i>Catholic University Milan, Italy – Workshop</i>	2019

## PUBLIC SPEAKING

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I deliver tailored talks designed to bridge senior leadership’s strategic vision with hands-on data science practices. Through concise frameworks, real-world case studies, and interactive prototyping sessions, I help audiences of all backgrounds—from executives to analysts—to gain actionable insights from data. An overview of topics presented for organizations such as Procter & Gamble, Dow, AN Deringer, GB foods, and Corning includes:

### **Towards a Data-driven organization**

*Interactive Workshops*

- Assessment of data maturity.
- Development of roadmap to turn data into actionable insights.

### **Deep Learning and AI in Organizations — Hype or Here to Stay?**

*Keynotes and Interactive Workshops*

- Overview of modern deep learning applications, from predictive models to Gen-AI.
- Hands-on prototyping: small-scale experiments to demonstrate value.

## **Supply Chain 4.0: AI, Data & Smart Decision-Making**

*Executive Masterclasses and Custom Sessions*

- Data-driven frameworks for end-to-end supply chain optimization.
- Building and leveraging digital twins to simulate and optimize operations.

## **From Data to Decision: Building Robust Learning Models**

*Custom Talks for Industry and Academia*

- Frameworks to translate complex datasets into clear business actions.
- Interactive algorithm prototyping sessions.

## **SERVICE**

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Reviewer for *Management Science*, *Operations Research*, *Manufacturing Services & Operations Management*, *Production and Operations Management*, *European Journal of Operational Research*, *International Journal of Production Economics*, *Omega*, *INFORMS Journal on Computing*.