
OLIVIER JEUNEN

Antwerp, Belgium

[Google Scholar](#) ◇ [GitHub](#) ◇ [LinkedIn](#) ◇ [olivierjeunen.github.io](#) ◇ olivierjeunen@gmail.com

Last updated: July 2025

PROFESSIONAL EXPERIENCE

Aampe

Principal Research Scientist

December 2024 – present

Antwerp, Belgium

Research and development centred around machine learning applications of personalisation and recommendation.

ShareChat

Lead Applied Scientist

December 2022 – December 2024

Edinburgh, United Kingdom

Research and development centred around recommendation, experimentation, and optimisation.

- Drive continuous improvements to core recommendation system for varying content types, leading to significant impact on user satisfaction and retention metrics as well as business revenue.
- Responsible for end-to-end ideation, modelling, development, deployment, and evaluation.
- Developed and shipped novel evaluation methods that lower the cost of experimentation significantly.
- Communicating scientific results to internal and external stakeholders, focusing on actionable insights.

Amazon

Postdoctoral Scientist

December 2021 – November 2022

Edinburgh, United Kingdom

“Early-Career Scientist”, researching and developing machine learning and causal inference in advertising.

- Develop and implement novel methods for a wide range of advertising problems, from recommendation to bidding and auctions; leading to significant increases for business KPIs across business units.
- Bridging communication between economists, engineers and management to identify R&D roadmaps.

Spotify

Research Scientist Intern

June 2021 – August 2021

London, United Kingdom

Research and development centred around the intersection of causal inference and machine learning.

Facebook (Meta)

Research Engineer Intern

September 2020 – November 2020

London, United Kingdom

Research and development centred around uncertainty estimation for causal models in computational advertising.

Criteo AI Lab

Research Scientist Intern

June 2019 – September 2019

Paris, France

Research and development centred around applications of counterfactual inference for recommender systems.

University of Antwerp

(Pre-/Post-)Doctoral Research Scientist

October 2017 – November 2021

Antwerp, Belgium

Research focused on implicit-feedback recommender systems and their evaluation in the Adrem Data Lab.

Froomle (University of Antwerp spin-off)

Data Scientist

August 2017

Antwerp, Belgium

Back-end development for a real-time recommendation architecture.

PrediCube (University of Antwerp spin-off)

Data Scientist & Research Intern

July 2016 – June 2017

Antwerp, Belgium

Research and development on distributed learning for computational advertising.

Technicolor

Data Scientist & Research Intern

September 2015 – June 2017

Antwerp, Belgium

Research internships, student jobs and M.Sc. thesis focused on machine learning applications with IoT data.

EDUCATION

University of Antwerp, Belgium

| | | |
|-------------------------------|---|------------------------------------|
| Ph.D. in Computer Science | Thesis: <i>Offline Approaches to Recommendation with Online Success</i> | 2017 – 2021 |
| M.Sc. in Computer Science | Minor: Data Science & Research | <i>Magna cum laude</i> 2015 – 2017 |
| B.Sc. in Computer Science | | <i>Cum laude</i> 2012 – 2016 |
| Erasmus exchange semester | University of Edinburgh, United Kingdom | Jan.–June 2015 |
| High School: Moretus, Belgium | Latin–Mathematics (option extra mathematics) | 2006 – 2012 |

TECHNICAL SKILLS & RESEARCH INTERESTS

| | |
|-------------------------|---|
| Programming | C, C++, Java, Python , SQL |
| Frameworks | Matplotlib , Numpy , Pandas , PyTorch , Scipy , Scikit-Learn, Apache Spark , Tensorflow |
| Cloud Computing | Amazon Web Services (AWS), Google Cloud Platform (GCP), Databricks |
| Research Focus | Causality, contextual bandits , information retrieval, machine learning, recommender systems |
| Languages Spoken | English, Dutch, French (basic) |
| Miscellaneous | Level 1 Award in Wines (Wine & Spirit Education Trust) |

HONOURS, AWARDS & ACHIEVEMENTS

| | |
|---------------------------------------|--|
| RecSys '21, '22, '23, '24 | Four consecutive Outstanding Reviewer Awards before promotion to SPC |
| AdKDD workshop at KDD '22 | Best Paper Award |
| RecSys '21 | Best Student Paper Award |
| WWW '21 | Student Scholarship Award |
| Criteo's RecoGym Challenge '20 | Led a team of MSc students to 1 st place prize |
| RecSys '19 | SIGCHI Travel Grant |

INVITED TALKS, KEYNOTES & GUEST LECTURES

| | | |
|-----------|---|--|
| July '25 | On (n)DCG as an Off-Policy Evaluation Metric for Recommendation | WBD, CA, USA, Online |
| June '25 | On (n)DCG as an Off-Policy Evaluation Metric for Recommendation | Etsy, NY, USA, Online |
| May '25 | <i>Poster: Counterfactual Inference under Thompson Sampling</i> | PRS Workshop, Netflix, CA, USA |
| Jan. '25 | On (n)DCG as an Off-Policy Evaluation Metric for Recommendation | PocketFM, IN, Online |
| Oct. '24 | <i>Invited Panel Discussion</i> | INTROSPECTIVES Workshop at RecSys '24, IT |
| May '24 | On (n)DCG as an Off-Policy Evaluation Metric for Recommendation | University of Amsterdam, NL |
| May '24 | <i>Guest Lecture: Learning to Value, Bid and Auction in Online Advertising</i> | University of Antwerp, BE |
| May '24 | <i>Keynote: Learning to Value, Bid and Auction in Online Advertising</i> | AI4Ads WS at WWW'24, SG |
| Apr. '24 | Learning to Value, Bid and Auction in Online Advertising | Maastricht University, NL |
| Jan. '24 | Pessimistic Decision-Making for Recommender Systems | Meta, USA, Online |
| Dec. '23 | <i>Invited Panel Discussion</i> | DBWRS '23, BE |
| Dec. '23 | Pessimistic Decision-Making for Recommender Systems | DBWRS '23, BE |
| Aug. '23 | Off-Policy Learning to Bid with AuctionGym | Tubi, USA, Online |
| July '23 | Pessimistic Decision-Making for Recommender Systems | University of Glasgow, UK |
| Apr. '23 | Probabilistic Position Bias Models for Short-Video Recommendations | ECIR '23 Industry Day, IE |
| Oct. '22 | Learning to Bid with AuctionGym | Indeed, USA, Online |
| June '22 | <i>Poster: Pessimistic Decision-Making for Recommendation</i> | PRS Workshop, Netflix, CA, USA |
| Apr. '22 | <i>Guest Lecture: Machine Learning Challenges in Advertising at Amazon</i> | University of Antwerp, BE |
| Apr. '22 | Advances in Bandit Learning for Recommendation | Booking.com, NL, Online |
| Feb. '22 | Embarrassingly Shallow Auto-Encoders for Dynamic Collaborative Filtering | DIR '21, NL, Online |
| Dec. '21 | <i>Podcast Interview</i> | "Recsperts: Recommender Systems Experts" series. |
| Nov. '21 | Advances in Bandit Learning for Recommendation | RMIT University, AUS, Online |
| Oct. '21 | <i>Keynote: The Quest for Recommendations with Online Success</i> | ORSUM Workshop at RecSys '21, NL |
| Sept. '21 | Advances in Bandit Learning for Recommendation | University of Amsterdam, NL |

| | | |
|-----------|---|---|
| Aug. '21 | Pessimistic Reward Models for Off-Policy Learning in Recommendation | Spotify, UK & USA, Online |
| July '21 | Realigning Offline Objectives with Online Success | Farfetch, PT, Online |
| Mar. '21 | Recommender Systems as (Offline) Bandit Learning | Cornell University, USA, Online |
| Dec. '20 | Joint Policy-Value Learning for Recommendation | DIR '20, BE, Online |
| Aug. '20 | Joint Policy-Value Learning for Recommendation | AISC “ML Explained” Seminars, CAN, Online |
| Feb. '20 | Counterfactual Policy Learning for Recommendation | SMiLe '20, DE |
| Dec. '19 | Counterfactual Policy Learning for Recommendation | DBDBD '19, NL |
| Nov. '19 | Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments | DIR '19, NL |
| Nov. '19 | Revisiting Offline Evaluation for Implicit-Feedback Recommender Systems | Uni. of Glasgow, UK |
| Sept. '19 | Counterfactual Policy Learning for Recommendation | Data Science Meetups, BE |

TEACHING & TUTORIALS

| | | |
|-----------|--|---|
| Sept. '25 | Practical Bandits: An Industry Perspective | CONSEQUENCES '25, CZ |
| Oct. '24 | Fantastic Reviews and How to Write Them | RecSys Summer School, IT |
| July '24 | Fantastic Reviews and How to Write Them | European Summer School on Information Retrieval, NL |
| Mar. '24 | Practical Bandits: An Industry Perspective | WSDM '24, MX |
| May '23 | Practical Bandits: An Industry Perspective | WWW '23, TX, USA |
| Apr. '21 | Recommender Systems through the Lens of Decision Theory | WWW '21, Online |
| July '20 | A Gentle Introduction to Recommendation as Counterfactual Policy Learning | UMAP '20, Online |
| Sept. '19 | Bandit Feedback and Likelihood Models for Recommendation | RecSys Summer School, SWE |
| June '19 | Neural Networks and Causal Recommendation | Data Science Summer School, École Polytechnique, FR |
| '17–'21 | Research Thesis Supervisor and Jury Member | M.Sc. Computer Science, University of Antwerp, BE |
| '17–'20 | Artificial Intelligence Project | M.Sc. Computer Science, University of Antwerp, BE |

OPEN-SOURCE PROJECTS

| | | |
|-------------------|--|---|
| AuctionGym | A Reinforcement Learning Simulator for Online Advertising | GitHub: amzn/auction-gym/ |
| RecoGym | A Reinforcement Learning Simulator for Recommender Systems | GitHub: criteo-research/reco-gym/ |
| Various | Implementations of published algorithms & methods | GitHub: olivierjeunen |

PATENTS

- Method for Allocating Frequency Channels to a Plurality of Neighbouring Access Points.
O. Jeunen, E. Zeljkovic, P. Bosch, K. Van Doorselaer, N. Godman. June 2017. eu 17305724.1 – 1875.

PEER-REVIEWED ACADEMIC PUBLICATIONS

Journal Articles and Dagstuhl Reports

1. Evaluation Perspectives of Recommender Systems: Driving Research and Education. Dagstuhl, 2024
C. Bauer, A. Said, E. Zangerle, **et al.**
2. Scheduling on a Budget: Avoiding Stale Recommendations with Timely Updates. Elsevier MLWA, 2023
R. Verachtert, **O. Jeunen** and B. Goethals.
3. Pessimistic Decision-Making for Recommender Systems. ACM ToRS, 2022
O. Jeunen and B. Goethals. *Special Issue on Highlights of RecSys '21*
4. Embarrassingly Shallow Auto-Encoders for Dynamic Collaborative Filtering. Springer UMUAI. 2022
O. Jeunen, J. Van Balen and B. Goethals. *Special Issue on Dynamic Recommender Systems and User Modelling*


Conference Papers

5. Agentic Personalisation of Cross-Channel Marketing Experiences.
S. Abboud, E. Hanna, **O. Jeunen**, V. Raheja and S. Wheeler. RecSys '25
6. Counterfactual Inference under Thompson Sampling.
O. Jeunen. RecSys '25

7. Δ -OPE: Off-Policy Estimation with Pairs of Policies.
O. Jeunen and A. Ustimenko. RecSys '24
8. Multi-Objective Recommendation via Multivariate Policy Learning.
O. Jeunen, J. Mandav, I. Potapov, N. Agarwal, S. Vaid, W. Shi and A. Ustimenko. RecSys '24
9. Optimal Baseline Corrections for Off-Policy Contextual Bandits.
S. Gupta*, **O. Jeunen***, H. Oosterhuis and M. de Rijke. *denotes equal contribution RecSys '24
10. Powerful A/B-Testing Metrics and Where to Find Them.
O. Jeunen, S. Baweja, N. Pokharna and A. Ustimenko. RecSys '24
11. On (Normalised) Discounted Cumulative Gain as an Off-Policy Evaluation Metric for Top- n Recommendation.
O. Jeunen, I. Potapov and A. Ustimenko. KDD '24
12. Learning Metrics that Maximise Power for Accelerated A/B-Tests.
O. Jeunen and A. Ustimenko. KDD '24
13. Monitoring the Evolution of Behavioural Embeddings in Social Media Recommendation.
S. Saket, **O. Jeunen** and Md. D. Kalim. SIGIR '24
14. Learning-to-Rank with Nested Feedback.
H. Sagtani, **O. Jeunen** and A. Ustimenko. ECIR '24
15. Variance Reduction in Ratio Metrics for Efficient Online Experiments.
S. Baweja, N. Pokharna, A. Ustimenko and **O. Jeunen**. ECIR '24
16. Ad-load Balancing via Off-policy Learning in a Content Marketplace.
H. Sagtani, M. G. Jhavar, R. Mehrotra and **O. Jeunen**. WSDM '24
17. On Gradient Boosted Decision Trees and Neural Rankers.
O. Jeunen, Sagtani, Doi, Karimov, Pokharna, Kalim, Ustimenko, Green, Mehrotra and Shi. FIRE '23
18. A Probabilistic Position Bias Model for Short-Video Recommendation Feeds.
O. Jeunen. RecSys '23
19. Off-Policy Learning to Bid with AuctionGym.
O. Jeunen, S. Murphy and B. Allison. KDD '23
20. Disentangling Causal Effects from Sets of Interventions in the Presence of Unobserved Confounders.
O. Jeunen, C. M. Gilligan-Lee, R. Mehrotra and M. Lalmas. NeurIPS '22
21. Pessimistic Reward Models for Off-Policy Learning in Recommendation.
O. Jeunen and B. Goethals. 🏆 Best Student Paper Award at RecSys '21
22. Top- K Contextual Bandits with Equity of Exposure.
O. Jeunen and B. Goethals. RecSys '21
23. Closed-Form Models for Collaborative Filtering with Side-Information.
O. Jeunen, J. Van Balen and B. Goethals. RecSys '20
24. Joint Policy-Value Learning for Recommendation.
O. Jeunen, D. Rohde, F. Vasile and M. Bompaiere. KDD '20
25. Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments.
O. Jeunen, K. Verstrepen and B. Goethals. RecSys '19
26. Revisiting Offline Evaluation for Implicit-Feedback Recommender Systems.
O. Jeunen. RecSys '19
27. A Machine Learning Approach for IEEE 802.11 Channel Allocation.
O. Jeunen, P. Bosch, M. Van Herwegen, K. Van Doorselaer, N. Godman and S. Latré. CNSM '18

Workshop Papers

28. Procedural Memory is not All You Need: Bridging Cognitive Gaps in LLM-based Agents.
S. Wheeler and **O. Jeunen**. HyPer '25
at UMAP
29. A Simple Model to Estimate Sharing Effects in Social Networks.
O. Jeunen. CONSEQUENCES '24
at RecSys

30. RecFusion: A Binomial Diffusion Process for 1D Data for Recommendation. GenRec '23
G. Bénédict, **O. Jeunen**, S. Papa, S. Barghav, D. Odijk and M. de Rijke. at CIKM
31. A Common Misassumption in Online Experiments with Machine Learning Models. PERSPECTIVES '23
O. Jeunen. at RecSys
32. Offline Recommender System Evaluation under Unobserved Confounding. CONSEQUENCES '23
O. Jeunen and B. London. at RecSys
33. Ad-load Balancing via Off-policy Learning in a Content Marketplace. CONSEQUENCES '23
H. Sagtani, M. G. Jhawar, R. Mehrotra and **O. Jeunen**. at RecSys
34. A Probabilistic Position Bias Model for Short-Video Feeds. ML4SM '23
O. Jeunen. at WWW
35. A Probabilistic Framework to Learn Auction Mechanisms via Gradient Descent. AI4WebAds '23
O. Jeunen, L. Stavrogiannis, A. Sayedi and B. Allison. at AAAI
36. Learning to Bid with AuctionGym.  Best Paper Award at AdKDD '22
O. Jeunen, S. Murphy and B. Allison. at KDD
37. Disentangling Causal Effects from Sets of Interventions in the Presence of Unobserved Confounders. WHY '21
O. Jeunen, C. M. Gilligan-Lee, R. Mehrotra and M. Lalmas. at NeurIPS
38. Offline Evaluation of Reward-Optimizing Recommender Systems: The Case of Simulation. SimuRec '21
I. Aouali, A. Benhalloum, M. Bompaire, B. Heymann, **O. Jeunen**, D. Rohde, O. Sakhi and F. Vasile. at RecSys
39. An Empirical Evaluation of Doubly Robust Learning for Recommendation. REVEAL '20
O. Jeunen and B. Goethals. at RecSys
40. Three Methods for Training on Bandit Feedback. CausalML '19
D. Mykhaylov, D. Rohde, F. Vasile, M. Bompaire and **O. Jeunen**. at NeurIPS
41. Learning from Bandit Feedback: An Overview of the State-of-the-art. REVEAL '19
O. Jeunen, D. Mykhaylov, D. Rohde, F. Vasile, A. Gilotte and M. Bompaire. at RecSys
42. On the Value of Bandit Feedback for Offline Recommender System Evaluation. REVEAL '19
O. Jeunen, D. Rohde and F. Vasile. at RecSys
43. Predicting Sequential User Behaviour with Session-based Recurrent Neural Networks. WSDM Cup '19
O. Jeunen and B. Goethals. at WSDM
44. Fair Offline Evaluation Methodologies for Implicit-Feedback Recommender Systems with MNAR Data. REVEAL '18, at RecSys
O. Jeunen, K. Verstrepren and B. Goethals.

Preprints

45. *t*-Testing the Waters: Empirically Validating Assumptions for Reliable A/B-Tests.
O. Jeunen.

Tutorials

46. Practical Bandits: An Industry Perspective (*extended*). WSDM '24
B. van den Akker, **O. Jeunen**, Y. Li, B. London, Z. Nazari and D. Parekh.
47. Practical Bandits: An Industry Perspective. WWW '23
B. van den Akker, **O. Jeunen**, Y. Li, B. London, Z. Nazari and D. Parekh.
48. Recommender Systems through the Lens of Decision Theory. WWW '21
F. Vasile, D. Rohde, **O. Jeunen**, A. Benhalloum and O. Sakhi.
49. A Gentle Introduction to Recommendation as Counterfactual Policy Learning. UMAP '20
F. Vasile, D. Rohde, **O. Jeunen** and A. Benhalloum.

Demonstrations

50. Interactive Evaluation of Recommender Systems with SNIPER – An Episode Mining Approach. RecSys '19
S. Moens, **O. Jeunen** and B. Goethals.

Workshop Proposals

51. CONSEQUENCES – Causality, Counterfactuals & Sequential Decision-Making for Recommender Systems.
H. Oosterhuis, **O. Jeunen**, Y. Saito, F. Vasile, Y. Wang and T. Joachims. RecSys '25
52. CONSEQUENCES – Causality, Counterfactuals & Sequential Decision-Making for Recommender Systems.
O. Jeunen, H. Oosterhuis, Y. Saito, F. Vasile and Y. Wang. RecSys '24
53. CONSEQUENCES – Causality, Counterfactuals & Sequential Decision-Making for Recommender Systems.
O. Jeunen, T. Joachims, H. Oosterhuis, Y. Saito, F. Vasile and Y. Wang. RecSys '23
54. CONSEQUENCES – Causality, Counterfactuals & Sequential Decision-Making for Recommender Systems.
O. Jeunen, T. Joachims, H. Oosterhuis, Y. Saito and F. Vasile. RecSys '22

Graduate Theses

1. Offline Approaches to Recommendation with Online Success. Ph.D. in Computer Science – 2021
Promotor: prof. dr. Bart Goethals.
Committee: prof. drs. Toon Calders, Maarten de Rijke, Floris Geerts, Thorsten Joachims, and Mounia Lalmas.
2. Data-Driven Frequency Planning in IEEE 802.11 Networks. M.Sc. in Computer Science – 2017
Promotor: prof. dr. Steven Latré. *Summa cum laude*

PROFESSIONAL SERVICE

Organising Committee

Industry co-chair for **RecSys** '25
Publicity co-chair for **RecSys** '24
Industry Day co-chair for **ECIR** '24
CONSEQUENCES Workshop at **RecSys** '22–'25
Web co-chair for **RecSys** '22–'23
Dutch-Belgian Information Retrieval Workshop (**DIR**) '20
ICTIR '25

Area Chair

Senior Program Committee

RecSys '25, **SIGIR** '25

Program Committee

RecSys '21–'24, **WWW** '22, **SIGKDD** '22–'25, **WSDM** '22–'25, **CIKM** '23–'24,
SIGIR '23–'24, **ECIR** '24

RecSys Workshops:

ORSUM '21–'23, **LERI** '23, **NORMalize** '23–24, **PERSPECTIVES** '23,
RecSys Challenge '23–'24, **SURE** '24

KDD Workshop:

EvalRS '23

Reviewer

ACM Transactions on Information Systems (**TOIS**)
ACM Transactions on Recommender Systems (**ToRS**)
IEEE Transactions on Knowledge & Data Engineering (**TKDE**)
Springer Data Mining and Knowledge Discovery (**DAMI**)
Springer Machine Learning (**ML**)
CHI '23
AISTATS '24