


Olivier JEUNEN

Doctoral Researcher @ University of Antwerp

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*I'm a researcher in the Adrem Data Lab at the University of Antwerp, supervised by Prof. Dr. Bart Goethals.
My research focuses on the intersection of machine learning, information retrieval and causal inference.*

PROFESSIONAL EXPERIENCE

Present October 2017	Doctoral Researcher, UNIVERSITY OF ANTWERP, Belgium Research focused on implicit-feedback recommender systems and their evaluation.
November 2020 September 2020	Research Scientist Intern, FACEBOOK, London, UK (Remote due to COVID-19) Research centred around uncertainty estimation for causal models in computational advertising.
September 2019 June 2019	Research Scientist Intern, CRITEO AI LAB, Paris, France Research centred around applications of counterfactual inference for recommender systems.
August 2017	Data Scientist, FROOMLE, Antwerp, Belgium Back-end development for a real-time recommendation architecture.
June 2017 July 2016	Data Scientist & Research Intern, PREDICUBE, Antwerp, Belgium Research on distributed learning for computational advertising.
June 2017 September 2015	Data Scientist & Research Intern, TECHNICOLOR, Antwerp, Belgium Internships, student jobs and MSc thesis focused on machine learning applications with IoT data.
September 2014 August 2011	Student Jobs, VARIOUS, Belgium Grill employee, brewery employee, IT department employee, Software Analyst, ...

EDUCATION

2017 - Present	Doctor of Science in Computer Science (PhD) University of Antwerp, Belgium. (Expected graduation: September 2021)
Sept. 2019	ACM Summer School on Recommender Systems University of Gothenburg, Sweden.
2015 - 2017	Master of Science in Computer Science: Data Science & Research (MSc) University of Antwerp, Belgium (Magna cum laude, with great distinction)
Jan. - May 2015	Erasmus Exchange programme University of Edinburgh, United Kingdom.
2012 - 2016	Bachelor of Science in Computer Science (BSc) University of Antwerp, Belgium. (Cum laude, with distinction)
2006 - 2012	High School Diploma: Latin – Mathematics Moretus-Ekeren, Belgium. (Optional surplus mathematics)

PROFESSIONAL SERVICE

Reviewer	ACM Transactions on Information Systems (ToIS) IEEE Transactions on Knowledge & Data Engineering (TKDE) Manning Publications Co.
Member	Association for Computing Machinery (ACM) Special Interest Groups (SIG) on: Computer-Human Interaction (CHI), Information Retrieval (IR), Knowledge Discovery & Data Mining (KDD)
Co-organiser	Dutch-Belgian Information Retrieval Workshop (DIR '20), Antwerp School of AI Meetups

LANGUAGES

Dutch	● ● ● ● ●
English	● ● ● ● ●
French	● ● ○ ○ ○
German	● ○ ○ ○ ○

HONOURS

- > 1st place in Criteo's RecoGym Challenge '20
- > Doctoral Symposium at ACM RecSys '19
- > SIGCHI Travel Grant for ACM RecSys '19
- > 5th place ACM WSDM Cup '19

TEACHING & INVITED TALKS (EXCLUDING CONFERENCE & POSTER PRESENTATIONS)

2019 - Present	Artificial Intelligence Project (University of Antwerp, MSc Computer Science)
2017 - Present	Supervisor and jury member for research theses (University of Antwerp, MSc Computer Science)
Apr. 2021	Recommender Systems through the Lens of Decision Theory (The 30th Web Conference (WWW '21), Slovenia / Online)
Dec. 2020	Joint Policy-Value Learning for Recommendation (Dutch-Belgian Information Retrieval Workshop (DIR '20), Online)
Aug. 2020	Joint Policy-Value Learning for Recommendation (A.I. Socratic Circles: Machine Learning Explained Seminars, Online)
July 2020	A Gentle Introduction to Recommendation as Counterfactual Policy Learning (ACM Conference on User Modeling, Adaptation and Personalization (UMAP '20), Online)
Feb. 2020	Counterfactual Policy Learning for Recommendation (Spring Workshop on Mining and Learning (SMiLe '20), Saigerhöhe, Germany)
Dec. 2019	Counterfactual Policy Learning for Recommendation (Dutch-Belgian DataBase Day (DBDBD '19), 's Hertogenbosch, Netherlands)
Nov. 2019	Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments (Dutch-Belgian Information Retrieval Workshop (DIR '19), Amsterdam, Netherlands)
Nov. 2019	Revisiting Offline Evaluation for Implicit-Feedback Recommender Systems (Information Retrieval Seminars, University of Glasgow, UK)
Sept. 2019	Counterfactual Policy Learning for Recommendation (Data Science Meetups, Leuven, Belgium)
Sept. 2019	Bandit Feedback and Likelihood Models for Recommendation (ACM Summer School on Recommender Systems, Gothenburg, Sweden)
June 2019	Neural Networks and Causal Recommendation (Data Science Summer School (DS3 '19), École Polytechnique, Paris, France)
2017 - 2019	Project Data Science (University of Antwerp, MSc Computer Science)

TECHNICAL SKILLS AND RESEARCH INTERESTS

Programming	C, C++, Java, Python
Scripting	CSS, Javascript, HTML, \LaTeX , PHP, R, SQL
Frameworks	D3, Hadoop, Hive, Keras, Numpy, Pandas, PyTorch, Scipy, Scikit-Learn, Spark, Tensorflow
Web Services	Amazon Web Services, Google Cloud, Microsoft Azure
Research Interests	Counterfactual and causal inference, data mining, deep learning, information retrieval, machine learning, natural language processing, recommender systems, reinforcement learning

OPEN-SOURCE PROJECTS

RECOGYM

JUNE 2019

 [GitHub](#)  [Blogpost](#)

A Reinforcement Learning Environment for the problem of Product Recommendation in Online Advertising
Ongoing project by Criteo AI Lab.

[Recommender Systems](#) [Reinforcement Learning](#) [Evaluation](#)

WSDM CUP: SPOTIFY SEQUENTIAL SKIP PREDICTION

JANUARY 2019

 [CrowdAI](#)  [Workshop Paper](#)  [GitHub](#)

CrowdAI research competition, 5th place out of 386 teams, top 2%.
Predictive modelling of user interaction behaviour with recommended music.

[Personalisation](#) [Recommender Systems](#) [Neural Networks](#)

VARIOUS KAGGLE COMPETITIONS

2017-2018

 [Kaggle](#)

Various research competitions, top 2 - 4%.

[Natural Language Processing](#) [Recommender Systems](#) [Neural Networks](#)

PATENTS

A 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.

Patent Granted by USPTO – Application Pending in Brazil, China and Europe.

1. **Closed-Form Models for Dynamic Collaborative Filtering.**
O. Jeunen, J. Van Balen and B. Goethals. 2021. *Under review by UMUAI Special Issue on Dynamic Recommender Systems.*
2. **Recommender Systems through the Lens of Decision Theory: Unifying Policy- and Value-based Approaches to Recommendation.**
F. Vasile, D. Rohde, O. Jeunen, A. Benhalloum and O. Sakhi. 2021. **WWW '21** (Tutorial)
3. **An Empirical Evaluation of Doubly Robust Learning for Recommendation.**
O. Jeunen and B. Goethals. 2020. **REVEAL '20** (RecSys Workshop)
4. **Closed-Form Models for Collaborative Filtering with Side-Information.**
O. Jeunen, J. Van Balen and B. Goethals. 2020. **RecSys '20** (Late-Breaking-Result)
5. **Joint Policy-Value Learning for Recommendation.**
O. Jeunen, D. Rohde, F. Vasile and M. Bompaire. 2020. **KDD '20**
6. **A Gentle Introduction to Recommendation as Counterfactual Policy Learning.**
F. Vasile, D. Rohde, O. Jeunen and A. Benhalloum. 2020. **UMAP '20** (Tutorial)
7. **Three Methods for Training on Bandit Feedback.**
D. Mykhaylov, D. Rohde, F. Vasile, M. Bompaire and O. Jeunen. **CausalML '19** (NeurIPS Workshop)
8. **Learning from Bandit Feedback: An Overview of the State-of-the-art.**
O. Jeunen, D. Mykhaylov, D. Rohde, F. Vasile, A. Gilotte and M. Bompaire. **REVEAL '19** (RecSys Workshop)
9. **On the Value of Bandit Feedback for Offline Recommender System Evaluation.**
O. Jeunen, D. Rohde and F. Vasile. **REVEAL '19** (RecSys Workshop)
10. **Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments.**
O. Jeunen, K. Verstrepen and B. Goethals. **RecSys '19**
11. **Revisiting Offline Evaluation for Implicit-Feedback Recommender Systems.**
O. Jeunen. **RecSys'19** (Doctoral Symposium)
12. **Interactive Evaluation of Recommender Systems with SNIPER - An Episode Mining Approach.**
S. Moens, O. Jeunen and B. Goethals. **RecSys '19** (Demo)
13. **Predicting Sequential User Behaviour with Session-based Recurrent Neural Networks.**
O. Jeunen and B. Goethals. **WSDM Cup '19** (WSDM Workshop)
14. **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**
15. **Fair Offline Evaluation Methodologies for Implicit-Feedback Recommender Systems with MNAR Data.**
O. Jeunen, K. Verstrepen and B. Goethals. **REVEAL '18** (RecSys Workshop)