

# Olivier JEUNEN

## Doctoral Researcher at the 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 (Expected Graduation: September 2021) Research focused on implicit-feedback recommender systems and their evaluation.	UNIVERSITY OF ANTWERP, Belgium
August 2021 June 2021	Research Scientist Intern (Remote due to COVID-19) Research centred around causal inference for machine learning and information retrieval.	SPOTIFY, London, United Kingdom
November 2020 September 2020	Researcher – Software Engineer Intern (Remote due to COVID-19) Research centred around uncertainty estimation for causal models in computational advertising.	FACEBOOK, London, United Kingdom
September 2019 June 2019	Research Scientist Intern Research centred around applications of counterfactual inference for recommender systems.	CRITEO AI LAB, Paris, France
August 2017	Data Scientist Back-end development for a real-time recommendation architecture.	FROOMLE, Antwerp, Belgium
June 2017 July 2016	Data Scientist & Research Intern Research on distributed learning for computational advertising.	PREDICUBE, Antwerp, Belgium
June 2017 September 2015	Data Scientist & Research Intern Internships, student jobs and MSc thesis focused on machine learning applications with IoT data.	TECHNICOLOR, Antwerp, Belgium
September 2014 August 2011	Student Jobs Grill employee, brewery employee, IT department employee, Software Analyst, ...	VARIOUS, Belgium

## EDUCATION

Present October 2017	Doctor of Science in Computer Science (Ph.D.) University of Antwerp, Belgium	(Expected Graduation: September 2021)
September 2019	ACM Summer School on Recommender Systems	University of Gothenburg, Sweden
June 2017 September 2015	Master of Science in Computer Science (M.Sc.) University of Antwerp, Belgium	Magna cum laude
Jan. – June 2015	Erasmus Exchange Programme	University of Edinburgh, United Kingdom
June 2016 September 2012	Bachelor of Science in Computer Science (B.Sc.) University of Antwerp, Belgium	Cum laude
2012 2006	High School Diploma: Latin – Mathematics Moretus-Ekeren, Belgium	Extra mathematics

## TECHNICAL SKILLS & RESEARCH INTERESTS

Programming	C, C++, Java, Python, SQL
Frameworks	Apache Hive, Keras, Numpy, Pandas, PyTorch, Scipy, Scikit-Learn, Apache Spark, Tensorflow
Research Focus	Causal inference, information retrieval, machine learning, recommender systems

## LANGUAGES

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

## HONOURS & ACHIEVEMENTS

> Criteo's RecoGym Challenge '20	Led 1st place team (3.000 EUR)
> ACM RecSys '19	Doctoral Symposium
> ACM RecSys '19	SIGCHI Travel Grant (1.500 USD)
> ACM WSDM Cup '19	5 <sup>th</sup> place out of 386 teams

<b>Program Committee</b>	ACM Conference on Recommender Systems ( <b>RecSys '21</b> )
<b>Journal Reviewer</b>	ACM Transactions on Information Systems ( <b>ToIS</b> ) IEEE Transactions on Knowledge & Data Engineering ( <b>TKDE</b> ) Manning Publications Co.
<b>Co-organiser</b>	Dutch-Belgian Information Retrieval Workshop ( <b>DIR '20</b> ) Antwerp School of AI Meetup on Recommendation and Personalisation
<b>Member</b>	Association for Computing Machinery ( <b>ACM</b> ) Special Interest Groups ( <b>SIG</b> ) on: Computer-Human Interaction ( <b>CHI</b> ), Information Retrieval ( <b>IR</b> ), Knowledge Discovery & Data Mining ( <b>KDD</b> )

## TEACHING & INVITED TALKS (EXCLUDING CONFERENCE & POSTER PRESENTATIONS)

### Teaching

2019 - Present	Artificial Intelligence Project	M.Sc. Computer Science, University of Antwerp, Belgium
2017 - Present	Research Thesis Supervisor and Jury Member	M.Sc. Computer Science, University of Antwerp, Belgium
Sept. 2019	Bandit Feedback and Likelihood Models for Recommendation	RecSys Summer School, Gothenburg, Sweden
June 2019	Neural Networks and Causal Recommendation	Data Science Summer School, École Polytechnique, France
2017 - 2019	Project Data Science	M.Sc. Computer Science, University of Antwerp, Belgium

### Tutorials

Apr. 2021	Recommender Systems through the Lens of Decision Theory	WWW '21, Online
July 2020	A Gentle Introduction to Recommendation as Counterfactual Policy Learning	UMAP '21, Online

### Invited Talks

Mar. 2021	Recommender Systems as Offline Reinforcement Learning	Research Meetings, Cornell University, Online
Dec. 2020	Joint Policy-Value Learning for Recommendation	DIR '20, Online
Aug. 2020	Joint Policy-Value Learning for Recommendation	AISC Machine Learning Explained Seminars, Online
Feb. 2020	Counterfactual Policy Learning for Recommendation	SMiLe '20, Germany
Dec. 2019	Counterfactual Policy Learning for Recommendation	DBDBD '19, Netherlands
Nov. 2019	Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments	DIR '19, Netherlands
Nov. 2019	Revisiting Offline Evaluation for Implicit-Feedback Recommender Systems	University of Glasgow, UK
Sept. 2019	Counterfactual Policy Learning for Recommendation	Data Science Meetups, Belgium

## OPEN-SOURCE PROJECTS

RECOGYM – A REINFORCEMENT LEARNING SIMULATOR FOR RECOMMENDER SYSTEMS	<a href="#">GitHub</a>	<a href="#">Blogpost</a>	JUNE 2019
WSDM CUP: SPOTIFY SEQUENTIAL SKIP PREDICTION	<a href="#">CrowdAI</a>	<a href="#">Workshop Paper</a>	<a href="#">GitHub</a> JAN. 2019
VARIOUS KAGGLE COMPETITIONS	<a href="#">Kaggle</a>		2017-2018

## 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.

## Journals

1. **Embarrassingly Shallow Auto-Encoders for Dynamic Collaborative Filtering.** Springer UMuAI  
O. Jeunen, J. Van Balen and B. Goethals. 2021.  
*Under review for Special Issue on Dynamic Recommender Systems and User Modelling (DyRSUM).*

## Conferences

2. **Uncertainty-Aware Reward Modelling for Off-Policy Learning in Recommendation.**  
O. Jeunen and B. Goethals. 2021. *Under double-blind review.*
3. **Closed-Form Models for Collaborative Filtering with Side-Information.** ACM RecSys '20  
O. Jeunen, J. Van Balen and B. Goethals. (Late-Breaking-Result)
4. **Joint Policy-Value Learning for Recommendation.** ACM SIGKDD '20  
O. Jeunen, D. Rohde, F. Vasile and M. Bompaire.
5. **Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments.** ACM RecSys '19  
O. Jeunen, K. Verstrepren and B. Goethals.
6. **Revisiting Offline Evaluation for Implicit-Feedback Recommender Systems.** ACM RecSys '19  
O. Jeunen. (Doctoral Symposium)
7. **A Machine Learning Approach for IEEE 802.11 Channel Allocation.** IEEE CNSM '18  
O. Jeunen, P. Bosch, M. Van Herwegen, K. Van Doorselaer, N. Godman and S. Latré.

## Workshops, Tutorials & Demos

8. **Recommender Systems through the Lens of Decision Theory.** WWW '21  
F. Vasile, D. Rohde, O. Jeunen, A. Benhalloum and O. Sakhi. (Tutorial)
9. **An Empirical Evaluation of Doubly Robust Learning for Recommendation.** REVEAL '20  
O. Jeunen and B. Goethals. (ACM RecSys Workshop)
10. **A Gentle Introduction to Recommendation as Counterfactual Policy Learning.** ACM UMAP '20  
F. Vasile, D. Rohde, O. Jeunen and A. Benhalloum. (Tutorial)
11. **Three Methods for Training on Bandit Feedback.** CausalML '19  
D. Mykhaylov, D. Rohde, F. Vasile, M. Bompaire and O. Jeunen. (NeurIPS Workshop)
12. **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. (ACM RecSys Workshop)
13. **On the Value of Bandit Feedback for Offline Recommender System Evaluation.** REVEAL '19  
O. Jeunen, D. Rohde and F. Vasile. (ACM RecSys Workshop)
14. **Interactive Evaluation of Recommender Systems with SNIPER - An Episode Mining Approach.** ACM RecSys '19  
S. Moens, O. Jeunen and B. Goethals. (Demo)
15. **Predicting Sequential User Behaviour with Session-based Recurrent Neural Networks.** WSDM Cup '19  
O. Jeunen and B. Goethals. (ACM WSDM Workshop)
16. **Fair Offline Evaluation Methodologies for Implicit-Feedback Recommender Systems with MNAR Data.** REVEAL '18  
O. Jeunen, K. Verstrepren and B. Goethals. (ACM RecSys Workshop)

## Graduate Theses

1. **Offline Approaches to Recommendation with Online Success.** Ph.D. in Computer Science – 2021  
Promotor: Prof. Dr. Bart Goethals. (To be conferred)
2. **Data-Driven Frequency Planning in IEEE 802.11 Networks.** M.Sc. in Computer Science – 2017  
Promotor: Prof. Dr. Steven Latré. (Summa cum laude)