

# Olivier JEUNEN

## PhD Candidate @ University of Antwerp

 LinkedIn  Twitter  GitHub  Google Scholar  
 Personal Website  @ olivierjeunen@gmail.com  Antwerp, Belgium

*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 causal inference, machine learning and information retrieval.*

## PROFESSIONAL EXPERIENCE

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

## EDUCATION

2017 - Present	<b>PhD in Computer Science</b> , University of Antwerp ( <i>expected graduation: September 2021</i> )
Sept. 2019	ACM Summer School on Recommender Systems (Gothenburg, Sweden)
2015 - 2017	<b>MSc Computer Science: Data Science &amp; Research</b> , University of Antwerp ( <i>magna cum laude</i> )
Jan. - May 2015	Erasmus exchange programme, University of Edinburgh (UK)
2012 - 2016	<b>BSc Computer Science</b> , University of Antwerp ( <i>cum laude</i> )
2006 - 2012	High School Diploma: Latin - Mathematics ( <i>option extra mathematics</i> )

## PROFESSIONAL SERVICE

<b>Journal Referee</b>	ACM Transactions on Information Systems ( <b>TOIS</b> ) IEEE Transactions on Knowledge & Data Engineering ( <b>TKDE</b> )
<b>Member</b>	ACM Special Interest Groups on: Computer-Human Interaction ( <b>CHI</b> ), Information Retrieval ( <b>IR</b> ), Knowledge Discovery & Data Mining ( <b>KDD</b> )
<b>Co-organiser</b>	Dutch-Belgian Information Retrieval Workshop ( <b>DIR'20</b> ), 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

## PATENTS

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

## SKILLS AND INTERESTS

Programming	C, C++, Java, Python
Scripting	CSS, Javascript, HTML, $\text{\LaTeX}$ , 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

## PROJECTS

### RECOGYM

JUNE 2019

 [GitHub](#)

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](#)

## ACADEMIC PUBLICATIONS

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



## 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)
- Dec. 2020 **Joint Policy-Value Learning for Recommendation**  
(Dutch-Belgian Information Retrieval Workshop (DIR), 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), Online)
- Feb. 2020 **Counterfactual Policy Learning for Recommendation**  
(Spring Workshop on Mining and Learning (SMiLe), Saigerhöh, Germany)
- Dec. 2019 **Counterfactual Policy Learning for Recommendation**  
(Dutch-Belgian DataBase Day (DBDBD), 's Hertogenbosch, Netherlands)
- Nov. 2019 **Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments**  
(Dutch-Belgian Information Retrieval Workshop (DIR), 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, École Polytechnique, Paris, France)
- 2017 - 2019 **Project Data Science**  
(University of Antwerp, MSc Computer Science)



## REFERENCES

---

**Dr. Bart Goethals**  
*Full Professor & Department Chair*  
UNIVERSITY OF ANTWERP  
bart.goethals@uantwerpen.be

**Dr. Flavian Vasile**  
*Principal Scientist*  
CRITEO AI LAB  
f.vasile@criteo.com

**Dr. Thorsten Joachims**  
*Professor*  
CORNELL UNIVERSITY  
thorste.joachims@cornell.edu