Olivier JEUNEN

PhD Candidate @ University of Antwerp
Machine Learning & Recommender Systems

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Born the 5th of May 1995 (25 years old) in Antwerp, Belgium

Pre-doctoral researcher in the Adrem Data Lab at the University of Antwerp, supervised by Prof. Dr. Bart Goethals.
My main line of research is centred around (implicit-feedback) recommender systems, ranging from algorithms to evaluation.
Recently, my interests have been focusing on applications of causal and counterfactual inference to recommendation.

Skills and Interests

Programming	C, **C++**, Java, **Python**
Scripting	CSS, Javascript, HTML, LaTeX, PHP, R, **SQL**
Frameworks	D3, Hadoop, Hive, **Keras**, **Numpy**, **Pandas**, **Scipy**, **Scikit-Learn**, Spark, **PyTorch**
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

Professional Experience

Present October 2017	**PhD Candidate, 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 applications of causal and counterfactual inference for advertising.
~~August 2020~~ ~~May 2020~~	**Research Scientist Intern, Pandora + SiriusXM, Oakland, CA, USA** (Delayed due to COVID-19) Research centred around applications of causal and counterfactual inference for music recommendation.
September 2019 June 2019	**Research Scientist Intern, Criteo AI Lab, Paris, France** Research centred around applications of causal and counterfactual inference for recommendation.
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 and back-end development of a dsitributed predictive modelling pipeline in Spark.
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	**Software Analyst, Duvel Moortgat, Antwerp, Belgium** Student job analysing requirements for a new Customer-Relationship-Management system.
September 2013 August 2011	**Student Jobs, Various, Belgium** Grill employee, brewery employee, IT department employee, …

Education

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

Teaching & Invited Talks (excluding conference 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)
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)

Professional Service

Journal Reviewer	ACM ToIS, IEEE TKDE
Member	ACM SIGCHI, SIGIR, SIGKDD

Honours

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

Languages

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

Strengths

- Passionate about data
- Motivated and eager-to-learn
- Autonomous and critical
- Creative and effective

Projects

RecoGym — June 2019

github.com/criteo-research/reco-gym

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.com/olivierjeunen/sequential-skip-prediction

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

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

Academic Publications

1. An Empirical Evaluation of Doubly Robust Learning for Recommendation.
   O. Jeunen and B. Goethals. 2020. **REVEAL'20** (RecSys Workshop)

2. Closed-Form Models for Collaborative Filtering with Side-Information.
   O. Jeunen, J. Van Balen and B. Goethals. 2020. **RecSys'20** (Late-Breaking-Result)

3. Joint Policy-Value Learning for Recommendation.
   O. Jeunen, D. Rohde, F. Vasile and M. Bompaire. 2020. **KDD'20**

4. A Gentle Introduction to Recommendation as Counterfactual Policy Learning.
   F. Vasile, D. Rohde, **O. Jeunen** and A. Benhalloum. 2020. **UMAP'20** (Tutorial)

5. Three Methods for Training on Bandit Feedback.
   D. Mykhaylov, D. Rohde, F. Vasile, M. Bompaire and **O. Jeunen**. **CausalML'19** (NeurIPS Workshop)

6. 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)

7. On the Value of Bandit Feedback for Offline Recommender System Evaluation.
   O. Jeunen, D. Rohde and F. Vasile. **REVEAL'19** (RecSys Workshop)

8. Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments.
   O. Jeunen, K. Verstrepen and B. Goethals. **RecSys'19**

9. Revisiting Offline Evaluation for Implicit-Feedback Recommender Systems.
   O. Jeunen. **RecSys'19** (Doctoral Symposium)

10. Interactive Evaluation of Recommender Systems with SNIPER - An Episode Mining Approach.
    S. Moens, **O. Jeunen** and B. Goethals. **RecSys'19** (Demo)

11. Predicting Sequential User Behaviour with Session-based Recurrent Neural Networks.
    O. Jeunen and B. Goethals. **WSDM Cup'19** (WSDM Workshop)

12. 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**

13. Fair Offline Evaluation Methodologies for Implicit-Feedback Recommender Systems with MNAR Data.
    O. Jeunen, K. Verstrepen and B. Goethals. **REVEAL'18** (RecSys Workshop)

References

Bart Goethals
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Flavian Vasile
Solution Architect, Criteo AI Lab
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