Olivier JEUNEN

PhD Candidate @ University of Antwerp
Recommender Systems & Machine Learning

linkedin.com/in/olivier-jeunen-6ba928114 github.com/olivierjeunen
olivierjeunen.github.io +32 499 18 45 07 olivierjeunen@gmail.com
Nerviërsstraat 13, 2018 Antwerp, Belgium
Born the 5th of May 1995 (24 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.

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 learning**, 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**
- Member of the Adrem Data Lab research group, under supervision of Prof. Dr. Bart Goethals
- Research in the field of recommender systems, with a focus on real-world systems that use implicit feedback and collaborative filtering techniques. My interests range from algorithms to evaluation.
- Supervision of and jury member for multiple Master Theses and Research Internships
- Teaching Assistant for the Data Science Project course (MSc Computer Science: Data Science)
- Frequent collaborations with University of Antwerp spin-off Froomle

Research | Recommender Systems | Personalisation | Data Science

September 2019 – June 2019 — **Research Scientist Intern, Criteo, Paris, France**
- Research in the "Causal Recommendations" team
- Focus on counterfactual evaluation and learning for recommender systems
- Collaboration as a PhD Research Internship

Research | Recommender Systems | Evaluation | RecoGym

August 2017 — **Data Scientist, Froomle, Antwerp, Belgium**
- Database administration and optimisation
- Implementing and updating the real-time recommender system architecture (back-end)
- Student job at University of Antwerp spin-off

C++ | Python | SQL

June 2017 – July 2016 — **Data Scientist & Research Intern, PrediCube, Antwerp, Belgium**
- MSc Research Intern in the 2016 - 2017 academic year: "*Scalable Predictive Modelling for Online Advertising*" (Promotor: Prof. Dr. Toon Calders, Mentor: Prof. Dr. David Martens)
- Feasibility study and development of a distributed predictive modelling pipeline in Apache Spark
- Student job at University of Antwerp spin-off in July 2016

Research | Apache Spark | Python | AWS

June 2017 – September 2015 — **Data Scientist & Research Intern, Technicolor, Antwerp, Belgium**

Research in the context of the Wi-Fi Dr. Project:
- MSc Thesis collaboration in the 2016 - 2017 academic year: "*Data-driven Frequency Planning for IEEE 802.11 Networks*" (Promotors: Prof. Dr. Steven Latré and Prof. Dr. Bart Goethals)
- MSc Research Intern in the 2015 - 2016 academic year: "*Supervised Learning of Wi-Fi Interference Sources*" (Promotors: Prof. Dr. Steven Latré and Prof. Dr. Bart Goethals)

Student jobs:
- **Sept. 2016**: reference measurements for the relationship between RSSI and physical layer rate
- **Sept. 2015**: development of an interactive dashboard for real-time monitoring data

Research | Computer Networks | IoT | Apache Hive | Apache Spark | D3 | Python | SQL | AWS

September 2014 | **Software Analyst, Duvel Moortgat, Antwerp, Belgium**
- Analysis of the requirements for a novel CRM system for one of Belgium's largest breweries
- Meetings with end users (salespeople) and developers (external) to translate needs into solutions
- Student job

Computer Science | Software Engineering

September 2013 – August 2011 | **Student Jobs, Various, Belgium**
- **Sept. 2013, Duvel Moortgat**: brewery employee (sorting centre)
- **April 2013, University of Antwerp**: IT department employee
- **Aug. 2012, Quick**: grill employee
- **Aug. 2011, Quick**: grill employee

Student jobs

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

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. 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 | **Bandit Feedback and Likelihood Models for Recommendation**
(ACM Summer School on Recommender Systems, Gothenburg, Sweden)
June 2019 | **Bandit Feedback and Likelihood Models for 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 RecoGym Challenge '20
- Doctoral Symposium at ACM RecSys '19
- SIGCHI Travel Grant ACM RecSys '19

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; solo side-project.

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

Counterfactual Policy Learning for Recommendation.
O. Jeunen, D. Rohde and F. Vasile. 2019. (*Under review*)
Recommender Systems | Counterfactual Learning

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

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)
Recommender Systems | Counterfactual Learning

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

Efficient Similarity Computation for Collaborative Filtering in Dynamic Environments.
O. Jeunen, K. Verstrepen, B. Goethals. **RecSys '19**
Recommender Systems | Algorithms | Efficiency

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

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

Predicting Sequential User Behaviour with Session-based Recurrent Neural Networks.
O. Jeunen, B. Goethals. **WSDM Cup '19** (WSDM Workshop)
Recommender Systems | Neural Networks | Classification

A Machine Learning Approach for IEEE 802.11 Channel Allocation.
O. Jeunen, P. Bosch, M. Van Herwegen, K. Van Doorselaer, N. Godman, S. Latré. **CNSM '18**
IEEE 802.11 | Channel Allocation | IoT

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

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
IEEE 802.11 | Channel Allocation | IoT

Languages

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

Strengths

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

References

Bart Goethals
Full Professor, University of Antwerp
@ bart.goethals@uantwerp.be

Flavian Vasile
Solution Architect, Criteo AI Lab
@ f.vasile@criteo.com