



# Yanou Ramon

## *Curriculum Vitae*

September 13, 1995 • Prinsstraat 13, 2000, Antwerp (Belgium)

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## Research Interests

Behavioral Big Data; (Explainable) Data Mining; Predictive Modelling; Human-Machine Interaction

Business and government that use humanly-generated Big Data (e.g., social media data, payment data, location data) can improve decision-making, however, it remains a question how the prediction models that are trained on these data make decisions, either because of the thousands of variables in the model (e.g., each individual payment is a variable in the model), or because of the nonlinear model structure (e.g., Deep Learning), or both. The models are “black-box”. My research investigates techniques to increase transparency of these models so that users can validate and trust model predictions, improve prediction models, and gain insight from and interact with these models. Model explanations are investigated both on the instance level (“which payments contributed to this loan applicant being classified as likely to default?”) and the global level (“which transaction behaviors lead to classifying someone as high default risk?”).

## Education

### **Ph.D. Fellowship in Fundamental Research**

**2018/22**

Fellowship by Research Foundation-Flanders • University of Antwerp, Belgium • Faculty of Business & Economics  
• Supervisor: Prof. David Martens (Applied Data Mining)

### **Master of Science (M. Sc.), Business Engineering (Finance)**

**2016/18**

University of Antwerp, Belgium, Faculty of Business and Economics • magna cum laude • major: European and International Business • passionate about data science and analytics

### **Bachelor of Science (B. Sc.), Business Engineering**

**2013/16**

University of Antwerp, Belgium, Faculty of Business and Economics • magna cum laude

### **Equivalent to ‘A’ Levels successfully completed**

**2007/13**

Sint-Rita College in Kontich, Belgium • magna cum laude • main courses: sciences and mathematics



## Publications

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### *Peer-reviewed journal articles*

De Cnudde, S., Ramon, Y., Martens, D., Provost, F. (2019). Deep Learning on Big, Sparse, Behavioral Data, Big Data, 7(4), pp.286-307.

Ramon, Y., Martens, D., Provost, F., Evgeniou, T. (2020). A Comparison of Instance-level Counterfactual Explanation Algorithms for Behavioral and Textual Data: SEDC, LIME-C and SHAP-C. Advances in Data Analysis and Classification. <https://doi.org/10.1007/s11634-020-00418-3>

### *Manuscripts under review*

Ramon, Y., Martens, D., Evgeniou, T., Praet, S. (2020). Improving the Cost of Explainability for High-Dimensional, Sparse Data using Metafeatures-based Rule-Extraction.

### *Conference talks*

Ramon, Y., Martens, D. (2019). Comparative study of instance-level explanations for big, sparse data. EURO Conference. Dublin, Ireland.

Ramon, Y., Martens, D. (2019). Instance-based Explanations: Motivation, Overview, and the Evidence Counterfactual Approach. European Conference on Data Analytics (ECDA). Bayreuth, Germany.

## Specialization & Work Experience

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### **Teaching assistant**

**Since October 2018**

University of Antwerp, Belgium, Faculty of Business and Economics • responsible for Data Science challenge and Python tutorials of Data Mining Master's course • teaching assistant of Ethics in Data Science, Cases & Trends in Data Science, and Data Engineering

### **Co-organizer Summer School Washington D.C.**

**July 2020**

University of Antwerp, Belgium, Faculty of Business and Economics • responsible for organizing the summer school "The American Business Environment" in Washington with a group of +25 Master's students

### **McKinsey & Company Next Generation Women Leaders Event Paris**

**May 2018**

3-day workshop in Paris organized by McKinsey & Company • inspirational speakers, case study, and opportunity to meet other female students and young professionals from all over the world

### **Member of Beta Gamma Sigma Honor Society – "Best in business"**

**Since November 2017**

Honor of Academic Excellence • top business students worldwide at universities with AACSB accreditation • Membership benefits: vast networking and leadership opportunities, and career resources

### **Erasmus Fall Semester Exchange (Toulouse, France)**

**2017**

Toulouse School of Management (Université Toulouse Capitole 1) • outcomes: international networking, improved French and English communication and personal development

### **Summer School "The American Business Environment" (Washington DC, USA)**

**July 2016**

Georgetown University • lectures, company visits, networking events, visits to Federal Reserve and IMF



**(Pre-)Junior Management Program (Antwerp, Belgium)**

**2016/18**

University of Antwerp • 25 students selected by the Dean based upon grades and extracurricular activities • soft-skill workshops • outcomes: professional goal-setting, personal development, developed managerial skills

**Student Worker Radiology Department (Sint-Niklaas, Belgium)**

**2013/15/16**

Logistic tasks, editing timetables for the workforces and completing databases

**Hostess MC Challenge (Brasschaat, Belgium)**

**2013/16**

Promoting companies' products, conducting face-to-face surveys for clients such as BMW and welcoming guests at events • outcomes: assertiveness, customer orientation, communication

**Language Summer School (Santa Barbara, USA)**

**July 2012**

EF Language Institute • first independent travel experience • English courses with computer labs, lectures and activities • outcomes: enhanced English communication, intercultural experience, independency

**Extracurricular activities**

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**Field hockey player at Braxgata Hockey Club (Antwerp, Belgium)**

Since 2013: Ladies Team • U15/16 National Team of Belgium • 2007/12: Provincial Team of Antwerp

**Languages**

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Dutch: native language

English: advanced (writing, listening and speaking)

French: advanced (writing, listening and speaking)

**IT skills**

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**Mathematical and statistical software:** Matlab, SAS, STATA, SPSS, JMP Pro

**Programming languages:** Python (advanced), R (advanced), SQL (advanced)

**Cloud computing skills:** Amazon Web Services (e.g., EC2)

**Industry-standard software:** Windows, Access and MS Office (incl. Outlook, Excel, Word and PowerPoint)