Jari Peeperkorn

Curriculum Vitae

PERSONAL DETAILS

Nationality	Dutch
Birth	July 14, 1995 (Leuven, Belgium)
Address	Twaalfmeistraat 6, 3012 Wilsele (Belgium)
Phone	+32 486 65 27 34
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EDUCATION

PhD Business economics 2019-2023

University of Leuven

PhD at the Research Centre for Information Systems Engineering (LIRIS), working on process mining and machine learning. Also following courses on different data science topics.

MSc. Astronomy and Astrophysics *cum laude* 2016-2019

University of Leuven

Combination of courses in astrophysics, observational astronomy, and theoretical high energy physics. Master thesis at centre for mathematical plasma-astrophysics: using LSTM neural networks to forecast geomagnetic storms.

BSc. Physics 2013-2017

University of Leuven

A general bachelor in physics. Minor: astronomy and informatics.

EXPERIENCE

Postdoctoral Researcher 2023-...

University of Leuven

Postdoctoral researcher at the Research Centre for Information Systems Engineering (LIRIS), working on process model forecasting, process mining, and machine learning.

PhD researcher 2019-2023

University of Leuven

PhD at the Research Centre for Information Systems Engineering (LIRIS), working on process mining and machine learning.

Student Job

Tutor 2016-2018

Slaagsleutels

Tutor in physics for high school students participating in the admission test for Medicin.

Experience as volunteer

Student representative 2015-2019

KU Leuven

Student member POC of physics (2015-2016, 2017-2019), Student member OC of astronomy and astrophysics (2016-2019) Student member department council phyics and astronomy (2015-2019) Student member facultary council sciences (2016-2019), member student council Stura (2015-2019)

Member of presidium 2014-2017

Wina Leuven vzw

Member of the presidium of Wina Leuven vzw in multiple functions: Media (responsible), Big activities, Business relations and Logistics.

Animator 2012-2014

Speelplein Boven-Lo

Animator for kids in the summer (with certificate).

SKILLS

Languages	Dutch (mother tongue) English (full professional proficiency) French (Limited working proficiency) German (Elementary proficiency)
Software	LaTeX, Celonis, Office, Linux, Maple
Programming	Python (good) Java (basic) Matlab (basic) C (basic) SQL (basic)
Skills	Machine Learning Process Mining Scientific Writing
Certificates	"Introduction to Machine Learning for scientists", Prace winter School. "HPC intro", "Python for HPC" and "Scientific Python", (VSC training sessions), 2018-2019 "Initiator attest trainer korfbal, BLOSO" (trainer sport), 2013 "Animator in het jeugdwerk" (animator for youth), 2012
Hobbies	Korfbal, Stage play

AWARDS AND ACKNOWLEDGEMENTS

Best Paper 2nd International Workshop on Leveraging Machine Learning in Process Mining (ML4PM)

Won best paper together with Seppe vanden Broucke and Jochen De Weerdt for work titled "Can deep neural networks learn process model structure? An assessment framework and analysis"

Winner best PhD team at Datathon 2020

Our team won the prize for best PhD team at the datathon for our application: Clean Air Route Finder, which could be used to fidn the route between two places in Leuven on which you would breathe in the least particulate matter.

LIST OF PUBLICATIONS

Journal publications

Peeperkorn, J., vanden Broucke, S. & De Weerdt, J. Global Conformance Checking Measures Using Shallow Representation and Deep Learning, Engineering Applications of Artificial Intelligence, Volume 123, Part B (2023)

Peeperkorn, J., vanden Broucke, S. & De Weerdt, J. Can recurrent neural networks learn process model structure?. J Intell Inf Syst (2022). `https://doi.org/10.1007/s10844-022-00765-x`

Peeperkorn J., vanden Broucke, S., & De Weerdt, J. Validation Set Sampling Strategies for Predictive Process Monitoring, Information Systems, Volume 121 (2024)

Conference proceedings

Stevens A., Peeperkorn J., De Smedt J. and De Weerdt J., Manifold Learning for Adversarial Robustness in Predictive Process Monitoring, ICPM 2023

Peeperkorn J, Vázquez C.O., Stevens A., De Smedt J., vanden Broucke S., De Weerdt J. (2023) Outcome-Oriented Predictive Process Monitoring on Positive and Unlabelled Event Logs, ICPM 2022 Workshops

Stevens, A., De Smedt, J., Peeperkorn, J., De Weerdt J. (2022) Assessing the Robustness in Predictive Process Monitoring through Adversarial Attacks, ICPM 2022

Vandenabeele, J., Vermaut, G., Peeperkorn, J., & De Weerdt, J. (2021). Enhancing Stochastic Petri Net-based Remaining Time Prediction using k-Nearest Neighbors., ATAED (Petri Nets 2022), `https://ceur-ws.org/Vol-3167`

Peeperkorn, J., vanden Broucke, S., De Weerdt, J. (2022). Can Deep Neural Networks Learn Process Model Structure? An Assessment Framework and Analysis. In: J. Munoz-Gama, X. Lu (Eds.), Process Mining Workshops, (127-139). Presented at the ICPM, Eindhoven. Cham. ISBN: 978-3-030-98581-3.

Stevens, A., De Smedt, J., Peeperkorn, J. (2022). Quantifying Explainability in Outcome-Oriented Predictive Process Monitoring. In: J. Munoz-Gama, X. Lu (Eds.), Process

Mining Workshops, (127-139). Presented at the ICPM, Eindhoven. ISBN: 978-3-030-98580-6.

Peeperkorn, J., vanden Broucke, S., De Weerdt, J. (2021). Supervised Conformance Checking Using Recurrent Neural Network Classifiers. vol. LNBIP 406, (175-187). Presented at the International Workshop on Leveraging Machine Learning in Process Mining, Padua. Cham, Switerland. ISBN: 978-3-030-72692-8. doi: 10.1007/978-3-030-72693-5_14

Peeperkorn, J., De Weerdt, J., vanden Broucke, S. (2020). Conformance checking using activity and trace embeddings. In: Business Process Management Forum : BPM Forum 2020, Seville, Spain, September 13–18, 2020, Proceedings, (105-121). Presented at the BPM Forum, Seville, 13 Sep 2020-18 Sep 2020. ISBN: 978-3-030-58637-9. doi: 10.1007/978-3-030-58638-6

Jan Niklas Adams, Jari Peeperkorn, Tobias Brockhoff, Isabelle Terrier, Heiko Göhner, Merih Seran Uysal, Seppe Vanden Broucke, Jochen De Weerdt and Wil van der Aalst, Discovering High-Quality Process Models Despite Data Scarcity, ER Forum 2023

Accepted, not yet published

Thais Rodrigues Neubauer, Jari Peeperkorn, Sarajane Marques Peres, Jochen De Weerdt and Marcelo Fantinato, Graph Embedding for Integrating Domain Knowledge in Vector Trace Representation, ICMLA

TEACHING

- 2024: Teaching the course Business Analytics (6 ECTS) in the Advanced Programme on Artificial Intelligence in Business and Industry (Postgraduate Certificate and Advanced Master), KU Leuven (academic year 2023-2024)
- Supervision of multiple master theses in HIR/HIRB/MinfM as a daily supervisor (19) (2019-2023) and as a promotor (3) (2023-2024) on different topics ranging from process mining to NLP.
- Assistant for the course Business Analysis/Business Analyse (2019-2023) and Introduction to Analytics (2022-2023), mainly in designing/correcting assignments