Dr. ir. Maaike Van Roy

Celestijnenlaan 200a - bus 2402
3001 Leuven

WORK EXPERIENCE

2025 – present	KU Leuven	**Postdoctoral Researcher** on "Reasoning Frameworks for Markov Models" Postdoctoral Fellowship from FWO

EDUCATION

2019 – 2025	KU Leuven	**Doctoral Degree in Engineering, Computer Science** "Soccer Through the Lens of Artificial Intelligence: Analyzing Actions and Tactics by Learning and Reasoning"
2017 – 2019	KU Leuven	**Master of Engineering: Computer Science** Option: Artificial Intelligence Master Thesis: "Using machine learning to improve the training individualization of professional soccer players"
2014 – 2017	KU Leuven	**Bachelor of Informatics**
2008 – 2014	Sint-Jozefscollege, Aarschot	**Modern Languages – Science**

OTHER EXPERIENCE

2019 – present	KU Leuven	**Teaching Assistant** – Big Data Analytics Programming
2020 – 2024	KU Leuven	**Ombuds** of the Master Computer Science
2019 – 2020	KU Leuven	**Teaching Assistant** – Modeling of Complex Systems
2015 – 2016	KU Leuven	**Tutor** Peer-Assisted-Learning

AWARDS

2022	IACSS&ISPAS Joint Conference	**Routledge Young Researcher Award** (3rd place) for "DataDebugging: Enhancing trust in soccer action-value models by contextualization"

COMMUNITY SERVICE

Reviewer

- Conferences: IJCAI 2021, 2024, 2025; ECML/PKDD 2021-2024; ECAI 2023
- Journals: International Journal of Sports Science & Coaching, International Journal of Computer Science in Sport, Computer Vision and Image Understanding
- Workshops: IT4PSS 2024, MLSA 2021 – 2024, AISA 2021

Organizer

- Involved in the organization of the 12th Workshop on Machine Learning and Data Mining for Sports Analytics at ECML/PKDD 2025.
- Co-lead for the AI for Sports use case, part of the Flanders AI Program (2024 – present). Responsible for managing the overall progress, collaborations between participants and external parties (academic and industry), reporting, and disseminating the work.
- Involved in the creation, organization, and presentation of the tutorial on Team Sports Analytics at ECML/PKDD 2024.

Talks

- Computer Vision in Sports Workshop at CVPR 2026 (upcoming)
- German Exercise and Training Conference 2025 – "Analyzing Actions and Tactics by Learning and Reasoning"
- Dagstuhl Seminar on "Computational Approaches to Strategy and Tactics in Sports" 2024 – "Evaluating Sports Analytics Models"
- Machine Learning and Data Analytics Symposium 2022 – "Evaluating Shot Decision-Making in Soccer"

SELECTED PEER-REVIEWED ARTICLES

- **Van Roy, M.**, Robberechts, P., Yang, W.C., De Raedt, L., Davis, J. (2023). A Markov Framework for Learning and Reasoning About Strategies in Professional Soccer. Journal Of Artificial Intelligence Research, 77, 517-562.
- Davis, J., Bransen, L., Devos, L., Jaspers, A., Meert, W., Robberechts, P., Van Haaren, J., **Van Roy, M.** (2024). Methodology and evaluation in sports analytics: challenges, approaches, and lessons learned. MACHINE LEARNING, 113 (9), 6977-7010.
- **Van Roy, M.**, Davis, J. (2023). DataDebugging: Enhancing trust in soccer action-value models by contextualization. In: Proceedings of the 13th World Congress of Performance Analysis of Sport and 13th International Symposium on Computer Science in Sport: vol. 1448, (193-196).
- **Van Roy, M.**, Cascioli, L., Davis, J. (2024). ETSY: A rule-based approach to Event and Tracking data SYnchronization. In: Proceedings of the 10th Workshop on Machine Learning and Data Mining for Sports Analytics: vol. 2035, (11-23).
- Robberechts, P., **Van Roy, M.**, Davis, J. (2023). un-xPass: Measuring Soccer Player's Creativity. In: KDD '23: Proceedings of the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, (4768-4777).