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Profile

I aim to build AI systems that learn how to learn, progressively moving from hand-designed learning algorithms to learned algorithms that optimally build on prior experience and efficiently adapt to new tasks. I founded OpenML, an open-source platform for sharing and structuring machine learning datasets, models, and experiments, and I work on combining AutoML, meta-learning, and continual learning to optimally learn from prior experience. I am always eager to meet new people and hope to change the world for the better.

Professional Experience

- 1/2014 - present ■ **Assistant Professor, TU Eindhoven**, Netherlands.
 - Founded the *OpenML* open-source project, with currently 11 core developers, 250k users, and integrations in key ML frameworks (e.g. scikit-learn, TensorFlow).
 - Built & coached a thriving AutoML research lab (10+ PhDs, postdocs, AI Engineers).
 - Co-authored a book on AutoML, with 780k downloads, 850+ citations, 4.5/5 rating on Amazon (based on 360+ reviews).
 - Presented tutorials at major conferences (e.g. NeurIPS, AAAI), and 30+ invited talks.
 - Developed a master course *Machine Learning Engineering*, with 88% approval rating. Received a Best Teacher award. 800+ subscribers and 40k views on YouTube.
 - Attracted 15 grants (EU, DARPA, NWO, Research Awards,...), including €3.7 million for building my own group.
 - Initiated a new track on Datasets and Benchmarks at the NeurIPS conference.
- 1/2013 - 12/2013 ■ **Data Scientist, CityLife** (now: Joyn), Belgium.
 - Developed and optimized a recommender system for 150k users.
- 9/2010 - 8/2013 ■ **Post-doctoral Fellow and Lecturer, Leiden University**, Netherlands.
 - Developed the first version of OpenML.
 - Developed scalable ML algorithms (MapReduce, HPC,...) in real-world applications.
- 5/2010 - 9/2010 ■ **Post-doctoral Fellow, KU Leuven**, Belgium.
- 8/2005 - 5/2010 ■ **Ph.D. researcher, KU Leuven**, Belgium, and **Waikato University**, New Zealand.
 - Won an ECML best demo award. Published original research in meta-learning.

Education

- 2014 – present ■ **Teaching and leadership qualifications, TU Eindhoven.**
 - Dutch University Teaching Qualification (BKO), 2016
 - Academic Leadership for Assistant Professors, 2020
- 2005 – 2010 ■ **Ph.D. Computer Science, KU Leuven.**
 - Thesis title: *Understanding Machine Learning Performance with Experiment Databases*.
 - Advisors: Hendrik Blockeel and Geoffrey Holmes (Univ. Waikato, New Zealand)
- 2000 – 2005 ■ **M.Sc. Computer Science, KU Leuven, cum laude.**
 - Thesis title: *A framework for high-level perception*, magna cum laude.
 - Advised by Prof. Douglas R. Hofstadter, Indiana University in Bloomington.

Awards and Fellowships

2022	📌	Best Teacher award. Dutch study association for data science students (Pattern)
2019-present	📌	ELLIS member. European Laboratory for Learning and Intelligent Systems
2019	📌	Amazon Research Award, Amazon Research
2018-present	📌	CLAIRE, Key member. Confederation of Laboratories for AI Research in Europe
2016,2017	📌	Microsoft Azure Research Award, Microsoft Research
2016	📌	Dutch Data Prize (for OpenML), Research Data Netherlands
2009	📌	Best Demo Award, 17th European Conference on Machine Learning (ECML-PKDD)

Skills

Leadership	📌	Coaching a team of 10 researchers (PhDs, postdocs, RSEs). Open source project lead (OpenML). Conference chair (Track Chair @ NeurIPS 2021-2022, Program Chair @ Discovery Science 2018, General Chair @ LION 2016).
Academic	📌	Published 100+ papers in journals, conferences, and workshops. Taught tutorials and summer schools at major venues (NeurIPS, AAAI, ACDL,...). Gave 30+ invited talks. Edited and reviewed for major journals and conferences (JMLR, NeurIPS, ICML,...).
Coding	📌	Proficient in Python, Javascript. Experience with R, Java. Open-source development.
Technologies	📌	ML Libraries (TensorFlow, scikit-learn, PyTorch,...), Databases (SQL/NoSQL), Web frameworks (React, Flask, Dash,...), API development, Server admin (Linux).

Media

6/5/2022	📌	Science Magazine, interview on Benchmarking in AI
5/5/2021	📌	BioTech podcast, interview on OpenML
5/2020	📌	KDnuggets, article on our new AutoML book
13/4/2019	📌	Science Magazine, interview on AutoML-Zero
15/2/2018	📌	Science Magazine, interview on the replicability of AI studies
10/2016	📌	Open Science Radio podcast, interview on OpenML
8/2014	📌	KDnuggets, article on OpenML

Teaching Experience

University courses

2019-present	📌	Machine Learning Engineering (M.Sc, 250 students), TU Eindhoven. Evaluation: 8.8/10. Teaching award ('pluim'), Best Teacher award from the Dutch study association for data science students (DSA Pattern), and nominated as a TU/e Best Teacher in 2022.
2018-present	📌	Data Mining (M.Sc, 75 students), Jhieronimus Academy of Data Science. Evaluation: 8.1/10. Teaching award ('pluim').
2016-2017	📌	Data Mining (B.Sc, 140 students), Tilburg University. Evaluation: 8.4/10. Teaching award ('pluim').
2015-2017	📌	Foundations of Data Mining (M.Sc, 80 students), TU Eindhoven. Evaluation: 7.8/10
2014-2015	📌	Web-scale Information Systems (M.Sc, 60 students), TU Eindhoven. Evaluation: 7.7/10
2014-2017	📌	Web Technology (B.Sc, 80 students), TU Eindhoven. Evaluation: 7.2/10






Teaching Experience (continued)

2011-2014  **Data Mining (B.Sc, 60 students)**, Leiden University. Evaluation: 7.6/10








Massive Open Online Courses (MOOCs)

2022 - present  **AutoML - Automated Machine Learning** (co-teacher), AI Campus, ki-campus.org








Invited Lectures

- 2022  **ACDL 2022**. Advanced Course on Data science and Machine Learning, Pontignano, Italy.
- 2021  **Univ. Trento** AutoML lecture. Advanced topics in ML and Optimisation, Trento, Italy.
  **ACDL 2021** Metalearning (3 lectures). Advanced Course on Data science and Machine Learning, Pontignano, Italy.
- 2019  **ACDL 2019** AutoML (3 lectures). Advanced Course on Data science and Machine Learning, Pontignano, Italy.
- 2017  **Geilo Winter School 2017** Tutorial on Machine Learning, Geilo, Norway.





Tutorials

- 2021  **AAAI 2021** Tutorial on Metalearning. AAAI Conference on Artificial Intelligence.
  **DSAA 2021** Tutorial on Metalearning. Data Science and Advanced Analytics Conference.
  **ODSC Europe 2021** Tutorial on AutoML. Open Data Science Conference.
- 2019  **ODSC Europe 2019** Tutorial on AutoML. Open Data Science Conference.
- 2018  **NeurIPS 2018** Tutorial on Automated Machine Learning, with Frank Hutter. Neural Information Processing Systems.
- 2017  **ECMLPKDD 2017** Tutorial on Automated Machine Learning.
- 2015  **ECMLPKDD 2015** Tutorial on Metalearning and Algorithm Selection.

PhD Student Advisor



- 2021-...  Pan Jiarong (TU Eindhoven). Bayesian Optimization using neural networks.
  Fangqin Zhou (TU Eindhoven). Meta-reinforcement learning for control.
  Andrei Simion-Constantinescu (TU Eindhoven). Self-supervised learning for vision.
  Israel Campero Jurado (TU Eindhoven). AutoML and metalearning for time series.
  Elif Ceren Gok (TU Eindhoven). AutoML for evolving data.
  Murat Onur Yildirim (TU Eindhoven). AutoML for unsupervised tasks.
- 2018-...  Bilge Celik (TU Eindhoven). AutoML for evolving data.

PhD Students Advised (defended)






- 2017-2022  Pieter Gijbbers (TU Eindhoven, MCS). Systems for AutoML research.
- 2015-2019  Chao Zhang (TU Eindhoven, IEIS, co-advisor). Data analysis for digital health.
- 2014-2018  Rafael Mantovani (Univ. Sao Paulo, ICMC Sao Carlos, co-advisor). Metalearning for hyperparameter tuning.
- 2012-2016  Jan van Rijn (Leiden University, LIACS). Massively collaborative machine learning.

Teaching Experience (continued)

PDEng Students Advised (defended)

- 2018-2020  Yandre Lozano, PDEng, Predictive Maintenance for Smart Buildings (TU Eindhoven).
-  Karthik Srinivasan, PDEng, Preventing Burglaries and Other Incidents (TU Eindhoven).

Other Mentorship

- 2022-...  Mert Kiliçkaya, Post-Doc (TU Eindhoven).
-  Pieter Gijbbers, AI Engineer, AutoML/OpenML development (TU Eindhoven).
- 2019-...  Marcos L.P. Bueno, Post-Doc (TU Eindhoven).
-  Prabhant Singh, AI Engineer, OpenML core development (TU Eindhoven).
- 2018-2021  Sahitya Ravi, AI Engineer, OpenML core development (TU Eindhoven).

Invited Talks

-  Mathematical Research Data Initiative (MaRDI) Symposium, Berlin, Sep 2022
-  OECD Workshop on AI and the productivity of science, Virtual, Nov 2021
-  Keynote, International Conference on Intelligent Data Engineering and Automated Learning (IDEAL), Virtual, Nov 2021
-  Scalable Data Science Keynote, International Conference on Very Large Data Bases (VLDB), Aug 2021
-  Data-Centric AI event with Andrew Ng, Virtual, Aug 2021
-  Florence Nightingale Symposium, Virtual, Jan 2021
-  Freiburg Machine Learning Lab, Virtual, Dec 2020
-  International FAIR Convergence Symposium, Virtual, Nov 2020
-  ELLIS AutoML Seminar, Virtual, Sep 2020
-  UCI Symposium on Reproducibility in Machine Learning, Virtual, Sep 2020
-  Booking.com Research, Amsterdam, The Netherlands, Jan 2020
-  ECML Workshop on Automated Machine Learning, Wurzburg, Germany, Sep 2019
-  UN Global Summit on AI for Good, Geneva, Switzerland, May 2019
-  Spring Symposium (AI for collaborative data science), AAAI, Stanford, USA, Mar 2019
-  MLOSS Workshop, NeurIPS, Montreal, Canada, Dec 2018
-  AutoML Workshop, PRICAI, Nanjing, China, Aug 2018
-  DEEM Workshop, SIGMOD, Houston, USA, Jun 2018
-  National eScience Symposium, Amsterdam, The Netherlands, Oct 2017
-  Reproducible Machine Learning workshop, ICML, Sydney, Australia, Aug 2017
-  Big data tools for physics and astronomy workshop, Amsterdam, The Netherlands, Jun 2017
-  Amazon Research, Berlin, Germany, Apr 2017 and Cambridge, UK, Feb 2017
-  Challenges in Machine Learning Workshop, NIPS, Barcelona, Spain, Dec 2016
-  Dutch Society for Pattern Recognition, Eindhoven, The Netherlands, Nov 2016
-  IBM Watson Research Center, New York, USA, Jun 2016
-  Machine Learning for High Energy Physics, Lund, Sweden, Jun 2016
-  Open Data Science @ Sheffield workshop, Sheffield, UK, Dec 2015
-  Horizon Talk, IDA, St Etienne, France, Oct 2015

Invited Talks (continued)

- Keynote, Statistical Computing (StatComp), Ulm, Germany, Jul 2015
- AutoML Workshop, ICML, Lille, France, Jul 2015
- Keynote, European Conference on Data Analysis (ECDA), Bremen, Germany, Jul 2014

Grants (amounts are funds specifically for my group)

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| 2022-... | ■ EU Horizon Europe, <i>AI4Europe</i> (WPL) €506,000 |
| | ■ Dutch Government, <i>Machine Learning for building renovations</i> (P) €240,000 |
| | ■ Dutch Science Foundation, Merian Fund, <i>Digital Twin of a Vertical Farm</i> (Co-PI) €278,000 |
| 2020-... | ■ EU Horizon 2020, <i>Stairway to AI</i> (P) €218,000 |
| | ■ ITEA Inno4Health, <i>Continuous monitoring in personal and physical health</i> (P) €517,000 |
| | ■ Dutch Science Foundation, TTW, <i>Multi Modal Photochemistry</i> (WPL) €122,000 |
| | ■ EU Horizon 2020, <i>TAILOR Network of AI Excellence</i> (WPL) €350,000 (+ managing a €1.5M networking fund) |
| | ■ Dutch Science Foundation, <i>SkyHigh: Leveraging AI in Vertical Farming</i> (PL) €300,000 |
| 2019-2021 | ■ BOOST, <i>Educational platform for machine learning and medical image analysis</i> (P) €60,000 |
| 2019-2020 | ■ Amazon Research Award, <i>The AutoML Gym</i> (PI) \$100,000 |
| 2017-... | ■ Dutch Science Foundation, Commit2Data, <i>Dynamic Data Analytics through Automatically Constructed Machine Learning Pipelines</i> (P) €240,000 |
| 2017-2021 | ■ DARPA, <i>Data Driven Discovery of Models</i> (P) €500,000 |
| 2016-2016 | ■ Microsoft Azure Research Award, <i>A Cloud-Based Platform for AutoML</i> (PI) €40,000 |
| 2012-2016 | ■ Dutch Science Foundation, Free Competition, <i>Massively Collaborative ML</i> (PI) €240,000 |
| 2012-2013 | ■ EU PASCAL Harvest, <i>MLOpen Machine Learning Platform</i> (PI) €30,000 |

PI: Principal Investigator, PL: Project leader, WPL: Work package leader, P: Participant

Professional Activities

Editorial Boards

- Journal of Machine Learning Research (JMLR), Action Editor
- Machine Learning Journal (MLJ), Action Editor
- ArXiv.org, Moderator for Machine Learning (CS.LG)

Conference Chair

- **Datasets & Benchmarks Chair.** Conference on Neural Information Processing Systems (NeurIPS 2021 and NeurIPS 2022)
- **Tutorial Chair.** Automated Machine Learning Conference (AutoML 2022)
- **Program Chair.** International Conference on Discovery Science (DS 2018)
- **General Chair.** Learning and Intelligent Optimization Conference (LION 2016)
- **Demo Chair.** European Conference on Machine Learning (ECMLPKDD 2013)
- **Program Chair.** Belgian-Dutch Machine Learning Conference (BeNeLearn 2010-2011)

Professional Activities (continued)

Workshop Chair

- NeurIPS Workshop on Meta-Learning, 2018 – 2021
- NeurIPS Workshop on Data-Centric AI, 2021
- AAAI Workshop on Meta-Learning, 2021
- ICML Workshop on Automatic Machine Learning, 2016 – 2021
- DALI Workshop on The Data Science Process, 2017
- ECMLPKDD Workshop on Automatic Machine Learning, 2017
- ECMLPKDD Workshop on Meta-Learning and Algorithm Selection, 2015
- ECAI Workshop on Meta-Learning and Algorithm Selection, 2014
- ECMLPKDD Workshop on Learning from Unexpected Results, 2012
- ECAI Workshop on Planning to Learn, 2012

PhD Thesis Examiner

- Xingchen Ma (KU Leuven), 2022
- Herilalaina Rakotoarison (Univ. Paris-Saclay), 2022
- Matthias Feurer (Univ. Freiburg), 2022
- Zhengying Liu (Univ. Paris-Saclay), 2021
- Taha Ceritli (Univ. Edinburgh), 2021
- Sebastian Flennerhag (Univ. Manchester), 2021
- Lisheng Sun (Univ. Paris-Saclay), 2019
- Michel Camilleri (Univ. Malta), 2017
- Gitte Vanwickelen (KU Leuven), 2017

Reviewer

- Journal of Machine Learning Research
- Machine Learning Journal
- Transactions on Pattern Analysis and Machine Intelligence
- Conference on Lifelong Learning Agents (CoLLAs) 2022
- Automated Machine Learning Conference (AutoML) 2022
- International Conference on Machine Learning (ICML) 2012 – 2021 (Area chair)
- International Conference on Machine Learning (ICML) 2012 – 2021 (Area chair)
- Neural Information Processing Systems (NeurIPS) 2016 – 2020 (Top 10% reviewer)
- Machine Learning and Systems (MLSys) 2019 – 2020
- European Conference on Machine Learning (ECML-PKDD) 2012 – 2017
- European Conference on Artificial Intelligence (ECAI) 2014 – 2016
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2016

Management tasks at TU Eindhoven

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| 2022-present | <ul style="list-style-type: none">Data Science & AI Master, Examination Committee, TU EindhovenData Science & AI Master, Admissions Board, TU Eindhoven |
| 2020-present | <ul style="list-style-type: none">Health core team, Eindhoven AI Systems Institute (EASI) |

Management tasks at TU Eindhoven (continued)

2019-2021	■	High-Performance Computing Committee, TU Eindhoven
2019-2020	■	Quantified self group, Data Science Center Eindhoven (DSC/e)
2015-present	■	Mentor for TU Eindhoven Master programme
2015-2017	■	Internationalization Coordinator, TU Eindhoven
2014-2018	■	Business Information Systems Master, Education Committee, TU Eindhoven
2014-2017	■	Coach for TU Eindhoven Bachelor School

Journal Articles

- 1 Bellido-Jiménez, J. A., Estévez, J., **Vanschoren, J.**, & García-Marín, A. P. (2022). AgroML: An open-source repository to forecast reference evapotranspiration in different geo-climatic conditions using machine learning and transformer-based models. *Agronomy*, 12(3), 656.
- 2 Rivolli, A., Garcia, L. P., Soares, C., **Vanschoren, J.**, & de Carvalho, A. C. (2022). Meta-features for meta-learning. *Knowledge-Based Systems*, 240, 108101.
- 3 Zhang, C., **Vanschoren, J.**, van Wissen, A., Lakens, D., de Ruyter, B., & IJsselsteijn, W. A. (2022). Theory-based habit modeling for enhancing behavior prediction in behavior change support systems. *User Modeling and User-Adapted Interaction*, 23.
- 4 Balázs, C., van Beekveld, M., Caron, S., Dillon, B. M., Farmer, B., Fowlie, A., Garrido-Merchán, E. C., Handley, W., Hendriks, L., Jóhannesson, G., Mamužić, J., Martinez, G., Scott, P., Ruiz de Austri, R., Searle, Z., Stienen, B., **Vanschoren, J.**, & White, M. (2021). A comparison of optimisation algorithms for high-dimensional particle and astrophysics applications. *Journal of High Energy Physics*, 2021(5), 1–46.
- 5 Celik, B., & **Vanschoren, J.** (2021). Adaptation strategies for automated machine learning on evolving data. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 43(9), 3067–3078.
- 6 Feurer, M., van Rijn, J. N., Kadra, A., Gijsbers, P., Mallik, N., Ravi, S., Müller, A., **Vanschoren, J.**, & Hutter, F. (2021). OpenML-Python: An extensible Python API for OpenML. *Journal of Machine Learning Research (JMLR)*, 22(100), 1–5.
- 7 Olier, I., Orhobor, O. I., Dash, T., Davis, A., **Vanschoren, J.**, & King, R. D. (2021). Transformational machine learning: Learning how to learn from many related scientific problems. *Proceedings of the National Academy of Sciences (PNAS)*, 118(49).
- 8 Rivolli, A., Garcia, L. P., Soares, C., **Vanschoren, J.**, & de Carvalho, A. C. (2021). Meta-features for meta-learning. *Knowledge-Based Systems*, *In press*.
- 9 Casalicchio, G., Bossek, J., Lang, M., Kirchhoff, D., Kerschke, P., Hofner, B., Seibold, H., **Vanschoren, J.**, & Bischl, B. (2019). OpenML: An R package to connect to the machine learning platform OpenML. *Computational Statistics*, 34(3), 977–991.
- 10 Gijsbers, P., & **Vanschoren, J.** (2019). GAMA: a Genetic Automated Machine learning Assistant. *Journal of Open Source Software (JOSS)*, 4(33), 1132.
- 11 Mantovani, R. G., Rossi, A. L., Alcobaca, E., **Vanschoren, J.**, & de Carvalho, A. C. (2019). A meta-learning recommender system for hyperparameter tuning: Predicting when tuning improves SVM classifiers. *Information Sciences*, 501, 193–221.
- 12 Sadawi, N., Olier, I., **Vanschoren, J.**, Van Rijn, J. N., Besnard, J., Bickerton, R., Grosan, C., Soldatova, L., & King, R. D. (2019). Multi-task learning with a natural metric for Quantitative Structure Activity Relationship learning. *Journal of Cheminformatics*, 11(1), 1–13.
- 13 Abdulrahman, S. M., Brazdil, P., van Rijn, J. N., & **Vanschoren, J.** (2018). Speeding up algorithm selection using average ranking and active testing by introducing runtime. *Machine learning*, 107(1), 79–108.
- 14 Olier, I., Sadawi, N., Bickerton, G. R., **Vanschoren, J.**, Grosan, C., Soldatova, L., & King, R. D. (2018). Meta-QSAR: A large-scale application of meta-learning to drug design and discovery. *Machine Learning*, 107(1), 285–311.
- 15 van Rijn, J. N., Holmes, G., Pfahringer, B., & **Vanschoren, J.** (2018). The online performance estimation framework: Heterogeneous ensemble learning for data streams. *Machine Learning*, 107(1), 149–176.
- 16 Lawrynowicz, A., Esteves, D., Panov, P., Soru, T., Dzeroski, S., & **Vanschoren, J.** (2017). An algorithm, implementation and execution ontology design pattern. *Advances in Ontology Design and Patterns*, 32, 55.

- 17 Bischl, B., Kerschke, P., Kotthoff, L., Lindauer, M., Malitsky, Y., Fréchette, A., Hoos, H., Hutter, F., Leyton-Brown, K., Tierney, K., & **Vanschoren, J.** (2016). ASlib: A benchmark library for algorithm selection. *Artificial Intelligence*, 237, 41–58.
- 18 Eerikäinen, L. M., **Vanschoren, J.**, Rooijackers, M. J., Vullings, R., & Aarts, R. M. (2016). Reduction of false arrhythmia alarms using signal selection and machine learning. *Physiological measurement*, 37(8), 1204–1216.
- 19 Gao, B., Berendt, B., & **Vanschoren, J.** (2016). Toward understanding online sentiment expression: An interdisciplinary approach with subgroup comparison and visualization. *Social Network Analysis and Mining*, 6(1), 1–16.
- 20 **Vanschoren, J.**, Van Rijn, J. N., Bischl, B., & Torgo, L. (2014). OpenML: Networked science in machine learning. *ACM SIGKDD Explorations Newsletter*, 15(2), 49–60.
- 21 Serban, F., **Vanschoren, J.**, Kietz, J.-U., & Bernstein, A. (2013). A survey of intelligent assistants for data analysis. *ACM Computing Surveys (CSUR)*, 45(3), 1–35.
- 22 **Vanschoren, J.**, Blockeel, H., Pfahringer, B., & Holmes, G. (2012). Experiment databases. a new way to share, organize and learn from experiments. *Machine learning*, 87(2), 127–158.

Papers at International Conferences

- 1 Campero-Jurado, I., & **Vanschoren, J.** (2022). Multi-fidelity optimization method with Asynchronous Generalized Island Model for AutoML. In *Genetic and Evolutionary Computation Conference (GECCO 2022)*.
- 2 van Gastel, R., & **Vanschoren, J.** (2022). Regularized Meta-Learning for Neural Architecture Search. In *Automated Machine Learning conference (AutoML 2022), Workshop Track*.
- 3 Bischl, B., Casalicchio, G., Feurer, M., Hutter, F., Lang, M., Mantovani, R. G., van Rijn, J. N., & **Vanschoren, J.** (2021). OpenML benchmarking suites. In *Proceedings of the Neural Information Processing Systems Track on Datasets and Benchmarks (@NeurIPS 2021)*.
- 4 Gijsbers, P., Pfisterer, F., van Rijn, J. N., Bischl, B., & **Vanschoren, J.** (2021). Meta-learning for symbolic hyperparameter defaults. In *Genetic and Evolutionary Computation Conference (GECCO 2021)* (pp. 151–152).
- 5 Gijsbers, P., & **Vanschoren, J.** (2021). GAMA: a General Automated Machine learning Assistant. In *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECMLPKDD 2021)* (pp. 560–564).
- 6 Grootendorst, M., & **Vanschoren, J.** (2019). Beyond bag-of-concepts: Vectors of locally aggregated concepts. In *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECMLPKDD 2019)* (pp. 681–696).
- 7 Bischl, B., Casalicchio, G., Hofner, B., Kerschke, P., Kirchhoff, D., Lang, M., Seibold, H., & **Vanschoren, J.** (2016). Connecting R to the OpenML project for Open Machine Learning. In *UseR! Conference (UseR 2016)* (pp. 1–11).
- 8 Zhang, C., van Wissen, A., Lakens, D., **Vanschoren, J.**, De Ruyter, B., & IJsselsteijn, W. A. (2016). Anticipating habit formation: A psychological computing approach to behavior change support. In *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2016)* (pp. 1247–1254).
- 9 Eerikäinen, L. M., **Vanschoren, J.**, Rooijackers, M. J., Vullings, R., & Aarts, R. M. (2015). Decreasing the false alarm rate of arrhythmias in intensive care using a machine learning approach. In *Computing in Cardiology Conference (CinC 2015)* (pp. 293–296).

- 10 Gao, B., Berendt, B., & **Vanschoren, J.** (2015). Who is more positive in private? Analyzing sentiment differences across privacy levels and demographic factors in Facebook chats and posts. In *Proceedings of the IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2015)* (pp. 605–610).
- 11 Mantovani, R. G., Rossi, A. L., **Vanschoren, J.**, Bischl, B., & Carvalho, A. C. (2015). To tune or not to tune: recommending when to adjust SVM hyper-parameters via meta-learning. In *2015 International Joint Conference on Neural Networks (IJCNN 2015)* (pp. 1–8).
- 12 Mantovani, R. G., Rossi, A. L., **Vanschoren, J.**, Bischl, B., & De Carvalho, A. C. (2015). Effectiveness of random search in SVM hyper-parameter tuning. In *International Joint Conference on Neural Networks (IJCNN 2015)* (pp. 1–8).
- 13 van Rijn, J. N., Abdulrahman, S. M., Brazdil, P., & **Vanschoren, J.** (2015). Fast algorithm selection using learning curves. In *International Symposium on Intelligent Data Analysis (IDA 2015)* (pp. 298–309).
- 14 van Rijn, J. N., Holmes, G., Pfahringer, B., & **Vanschoren, J.** (2015). Having a Blast: Meta-learning and heterogeneous ensembles for data streams. In *IEEE International Conference on Data Mining (ICDM 2015)* (pp. 1003–1008).
- 15 **Vanschoren, J.**, Bischl, B., Hutter, F., Sebag, M., Kegl, B., Schmid, M., Napolitano, G., Wolstencroft, K., Williams, A. R., & Lawrence, N. (2015). Towards a data science collaboratory. In *International Symposium on Intelligent Data Analysis (IDA 2015)* (Vol. 9385).
- 16 van Rijn, J. N., Holmes, G., Pfahringer, B., & **Vanschoren, J.** (2014). Algorithm selection on data streams. In *International Conference on Discovery Science (DS 2014)* (pp. 325–336).
- 17 van Rijn, J. N., Bischl, B., Torgo, L., Gao, B., Umaashankar, V., Fischer, S., Winter, P., Wiswedel, B., Berthold, M. R., & **Vanschoren, J.** (2013). OpenML: A collaborative science platform. In *Joint European conference on machine learning and knowledge discovery in databases (ECMLPKDD 2013)* (pp. 645–649).
- 18 Leite, R., Brazdil, P., & **Vanschoren, J.** (2012a). Selecting classification algorithms with active testing. In *Machine learning and data mining in pattern recognition (MLDM 2012)* (pp. 117–131).
- 19 Reutemann, P., & **Vanschoren, J.** (2012). Scientific workflow management with ADAMS. In *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECMLPKDD 2012)* (pp. 833–837).
- 20 Vespier, U., Knobbe, A., Nijssen, S., & **Vanschoren, J.** (2012a). MDL-based analysis of time series at multiple time-scales. In *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECMLPKDD 2012)* (pp. 371–386).
- 21 Vespier, U., Knobbe, A., **Vanschoren, J.**, Miao, S., Koopman, A., Obladen, B., & Bosma, C. (2011). Traffic events modeling for structural health monitoring. In *International Symposium on Intelligent Data Analysis (IDA 2011)* (pp. 376–387).
- 22 **Vanschoren, J.**, & Blockeel, H. (2009a). A community-based platform for machine learning experimentation. In *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECMLPKDD 2009)* (pp. 750–754).
- 23 **Vanschoren, J.**, & Blockeel, H. (2008). Investigating classifier learning behavior with experiment databases. In *European Conference on Data Analysis (ECDA 2008)* (pp. 421–428).
- 24 **Vanschoren, J.**, Blockeel, H., Pfahringer, B., & Holmes, G. (2008). Organizing the world's machine learning information. In *International Symposium On Leveraging Applications of Formal Methods, Verification and Validation (ISOLA 2008)* (pp. 693–708).
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