# Curriculum Vitae

## **Personal Information**

Name, Surname: Ričards Marcinkevičs

Date of Birth: 28.12.1995

Address: Wieslergasse 3, 8049, Zürich, Switzerland

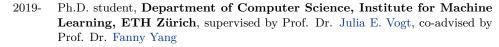
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Nationality: Latvian



#### Education



2017-2019 M.Sc. ETH in Statistics, with distinction, **Department of Mathematics, ETH Zürich**. Master thesis: "Causal Inference in Time Series for Identifying Molecular Fingerprints during Sleep", supervised by Prof. Dr. Joachim M. Buhmann, advised by Đorđe Miladinović

2014-2017 B.Sc. in Data Science and Knowledge Engineering, summa cum laude, **Department of Data Science and Knowledge Engineering, Maastricht University** 

2009-2014 Rīga Secondary School 34, General Certificate of Secondary Education

2002-2009 Rīga Secondary School 95

# Publications & Preprints

Manduchi, L.,<sup>†</sup> Marcinkevičs, R.,<sup>†</sup> Massi, M.C., Weikert, T., Sauter, A., Gotta, V., Müller, T., Vasella, F., Neidert, M.C., Pfister, M., Stieltjes, B., Vogt, J.E. (2022) A Deep Variational Approach to Clustering Survival Data. 10<sup>th</sup> International Conference on Learning Representations, ICLR 2022.

Roig Aparicio, P., **Marcinkevičs, R.**, Reis Wolfertstetter, P., Wellmann, S., Knorr, C., Vogt, J.E. (2021) Learning Medical Risk Scores for Pediatric Appendicitis. Short paper at 20<sup>th</sup> IEEE International Conference on Machine Learning and Applications, ICMLA 2021

Nowak, N., Gaisl, T., Miladinovic, D., **Marcinkevičs, R.**, Osswald, M., Bauer, S., Buhmann, J.M., Zenobi, R., Sinues, P., Brown, S.A., Kohler, M. (2021) Rapid and reversible control of human metabolism by individual sleep states. *Cell Reports*.

Hatteland, A.H., Marcinkevičs, R., Marquis, R., Frick, T., Hubbard, I., Vogt, J.E., Brunschwiler, T., Ryvlin, P. (2021) Exploring Relationships between Cerebral and Peripheral Biosignals with Neural Networks. Best paper award at IEEE International Conference on Digital Health, ICDH 2021.

Marcinkevičs,  $\mathbf{R}.$ , Reis Wolfertstetter,  $\mathbf{P}.$  Wellmann, S., Knorr, C., Vogt, J.E. (2021) Using machine learning to predict the diagnosis, management and severity of pediatric appendicitis. *Frontiers in Pediatrics*.

Marcinkevičs, R. and Vogt, J.E. (2021) Interpretable Models for Granger Causality Using Self-explaining Neural Networks. 9<sup>th</sup> International Conference on Learning Representations, ICLR 2021.

Marcinkevičs, R. and Vogt, J.E. (2020) Interpretability and Explainability: A Machine Learning Zoo Mini-tour. arXiv: 2012.01805.

Daunhawer, I., Sutter, T.M., **Marcinkevičs, R.**, Vogt, J.E. (2020) Self-supervised Disentanglement of Modality-specific and Shared Factors Improves Multimodal Generative Models.  $42^{nd}$  DAGM German Conference on Pattern Recognition, DAGM GCPR 2020.

# **Workshop Contributions**

Marcinkevičs, R., Ozkan, E., Vogt, J.E. (2022) Debiasing Neural Networks using Differentiable Classification Parity Proxies. *ICLR Workshop on Socially Responsible Machine Learning*.

Reis Wolfertstetter, P., **Marcinkevičs, R.**, Wellmann, S., Knorr, C., Vogt, J.E. (2021) Using Machine Learning to Predict the Diagnosis, Management and Severity of Pediatric Appendicitis. *Gero Wesener prize at Kongress für Kinder- und Jugendmedizin (KKJ)*.



Manduchi, L.,<sup>†</sup> Marcinkevičs, R.,<sup>†</sup> Vogt, J.E. (2021) A Deep Variational Approach to Clustering Survival Data. AI for Public Health Workshop at ICLR.

Marcinkevičs, R. and Vogt, J.E. (2020) Interpretable Models for Granger Causality Using Self-explaining Neural Networks. NeurIPS Workshop on Interpretable Inductive Biases and Physically Structured Learning.

Marcinkevičs, R., Miladinović, D., Vogt, J.E., Buhmann, J.M. (2020) Nonlinear Granger Causality for Identifying Molecular Fingerprints during Sleep. Swiss Institute of Bioinformatics (SIB) Days.

## **Talks**

Debiasing Neural Networks using Differentiable Classification Parity Proxies (April 2022) ICLR Workshop on Socially Responsible Machine Learning.

Deep Variational Approaches for Weakly Supervised Clustering with Applications to Survival Data (November 2021) Research seminar of the TU Wien Machine Learning Research Unit.

Machine Learning Basics for Physicians (November 2021) Barmherzige Brüder Regensburg Hospital journal club.

A Deep Variational Approach to Clustering Survival Data (March & May 2021) AI for Public Health Workshop at ICLR and IBM Research Zürich machine learning seminar.

Interpretable Models for Granger Causality Using Self-explaining Neural Networks (November 2020) ETH Zürich Doctoral Machine Learning Seminar.

#### Reviewing

Conferences	ICML 2022; NeurIPS 2022
Journals	iScience ( $Cell\ Press$ ); International Journal of Computer Vision ( $Springer$ )
Workshops	Workshop on Computational Biology (ICML 2022); Bridging the Gap: From Machine Learning Research to Clinical Practice (NeurIPS 2021)

# Work Experience

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2019- Research assistant at the Department of Computer Science, ETH ZÜRICH 2015-2017 Intern at MEDTRONIC Bakken Research Center, Maastricht
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# Teaching Experience

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2021, 2022 | TA for Data Science for Medicine (252-0868-00L)
2020, 2021 | TA for Advanced Machine Learning (252-0535-00L)
2020 | TA for Digital Medicine II (252-0868-00L)
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# Languages

Latvian (native), Russian (native), English (professional), German (limited working)

#### Programming & Software Skills

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Basic C++, mySQL, GLPK, OpenMP, Open MPI, Adobe Photoshop
Intermediate C#, LATEX, OpenCV, TensorFlow
Advanced python, PyTorch, Java, R, MATLAB, MS Office
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#### Interests and Activities

Recreational Mathematics, History, Literature, Philosophy, Angling, Swimming