

Christopher Morris

Address: TU Dortmund University,
Computer Science Department,
Otto-Hahn-Straße 14,
Dortmund, 44227

Email: christopher.morris@udo.edu

Website: www.christophermorris.info

Nationality: German/British

Areas of Specialization

Machine Learning with Graphs (Graph Kernels, Graph Neural Networks), Graph Algorithms, Algorithm Engineering

Current Position

2015–present *PhD Student/Research Associate*, TU Dortmund University, Dortmund

Jan 2018– Mar 03/2018 *Research stay at Stanford University*, staying with Jure Leskovec

Education

1997–2007 University Entrance Qualification, Erzbischöfliches St.-Angela-Gymnasium, Wipperfürth

2008–2012 B. Sc. in Computer Science, TU Dortmund University

2012–2015 M. Sc. in Computer Science, TU Dortmund University, Final Grade: 1.0 (best possible grade)

Publications

Conference Papers

2019 Christopher Morris, Martin Ritzert, Matthias Fey, William L. Hamilton, Jan Eric Lenssen, Gaurav Rattan, Martin Grohe
Weisfeiler and Leman Go Neural: Higher-order Graph Neural Networks,
AAAI Conference on Artificial Intelligence (AAAI) 2019

2018 Rex Ying, Jiaxuan You, Christopher Morris, Xiang Ren, William L. Hamilton, Jure Leskovec
Hierarchical Graph Representation Learning with Differentiable Pooling,
Neural Information Processing Systems (NIPS) 2018, spotlight presentation, and KDD Deep Learning Day 2018

Nils M. Kriege, Christopher Morris, Anja Rey, Christian Sohler,
A Property Testing Framework for the Theoretical Expressivity of Graph Kernels,

International Joint Conference on Artificial Intelligence (IJCAI) 2018

- 2017** Christopher Morris, Kristian Kersting, Petra Mutzel,
Glocalized Weisfeiler-Lehman Graph Kernels: Global-Local Feature Maps of Graphs,
IEEE International Conference on Data Mining (ICDM) 2017, *Full paper*
- Christopher Morris, Nils M. Kriege,
Recent Advances in Kernel-Based Graph Classification,
European Conference on Machine Learning & Principles and Practice of Knowledge Discovery
in Databases (ECML PKDD) 2017
- 2016** Christopher Morris, Nils M. Kriege, Kristian Kersting, Petra Mutzel,
Faster Kernels for Graphs with Continuous Attributes via Hashing,
IEEE International Conference on Data Mining (ICDM) 2016

Journal Articles

- 2017** Fritz Bökler, Mathias Ehrgott, Christopher Morris, Petra Mutzel,
Output-sensitive Complexity of Multiobjective Combinatorial Optimization,
Journal of Multicriteria Decision Analysis, 2017
- 2017** Nils M. Kriege, Marion Neumann, Christopher Morris, Kristian Kersting, Petra Mutzel,
*A Unifying View of Explicit and Implicit Feature Maps for Structured Data: Systematic
Studies of Graph Kernels*,
In submission

Teaching

Supervised eight bachelor and master thesis

- WS 2017/18** Seminar *Algorithm Engineering*
- SS 2017** Seminar *Algorithm Engineering*
- WS 2016/17** Student project group *Algorithm Engineering for Graph Data Mining*
Seminar *Algorithms Unplugged*
- SS 2016** Seminar *Algorithm Engineering*
Seminar *Graph Mining*
- WS 2015/16** Seminar *Algorithm Engineering*
- As a student** Programming tutorials for engineering students,
Teaching assistant for a course on theoretical computer science

Service to the Profession

Reviewer for ISAAC 2018, ESA 2018, WALCOM 2017

Member of the appeal commission for the professorship “Data Mining” (2017)

Computational Skills

Python, C++, \LaTeX , Scikit-learn, NumPy, TensorFlow, PyTorch

Referees

Prof. Petra Mutzel
Chair of Algorithm Engineering,
Department of Computer Science,
TU Dortmund University
petra.mutzel@udo.edu

Prof. Kristian Kersting
Machine Learning Group,
Department of Computer Science,
TU Darmstadt
kersting@cs.tu-darmstadt.de

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