

# Christopher Morris

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

**Email:** christopher.morris@udo.edu

**Website:** www.christophermorris.info

**GitHub:** chrsmrrs

**Nationality:** German/British

## Areas of Specialization

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

## Current Position

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

**1–3/2018** *Research stay at Stanford University*, staying with Jure Leskovec

## Education

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

**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*

### Invited Talks

### 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

Reviewer for ACM TKDD

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

## Computational Skills

Python, C++, L<sup>A</sup>T<sub>E</sub>X, 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

Last updated: January 21, 2019