

# Christopher Morris

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Computer Science Department,  
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**Nationality:** German/British

## Areas of Specialization

Machine Learning with Graphs (Graph Kernels, Graph Embedding, and Representation Learning), Graph Algorithms, Algorithm Engineering

## Current Position

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

## 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

**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**

**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**

**2017** Reviewer for WALCOM 2017  
Subreviewer for ESA 2018  
Member of the appeal commission for the professorship “Data Mining”

### **Computational Skills**

Python, C++,  $\text{\LaTeX}$ , 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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