Curriculum Vitæ

Personal Information

Name	Markus Andreas Daniel Blumenstock
Nationality	German
Civil status	Married, one child
Office address	Room 03-419, Staudingerweg 9, 55122 Mainz, Germany
Email	mablumen(at)uni-mainz(dot)de

Employment

11/2014 – today	**Research assistant** Institute of Computer Science Johannes Gutenberg University Mainz
03/2018 – 10/2018	Parental leave

Education

01/2015 – today	**PhD candidate**, University of Mainz Thesis title: *Pseudoforest Partitions and the Approximation of Connected Subgraphs of High Density*, submitted Advisor: Professor Ernst Althaus
10/2012 – 09/2014	**Master of Science**, University of Mainz Computer science, minor in mathematics Grade 1.3 (GPA equivalent: 3.7) Thesis title: *Graph Clustering and Jaccard Similarity Estimation in Offline and Streaming Settings* Advisor: Professor Stefan Kramer

10/2009 – 09/2012	**Bachelor of Science**, University of Mainz Computer science, minor in mathematics Grade 1.6 (GPA equivalent: 3.4) Thesis title: *Application-Oriented Scheduling With Eligibility Restrictions and Precedence Constraints* Advisor: Professor Elmar Schömer
06/2009	**Allgemeine Hochschulreife** (university admission) Graf-Stauffenberg-Gymnasium in Flörsheim Grade 1.4 (GPA equivalent: 3.6)

Prizes and Scholarships

09/2017 – 12/2017	Scholarship of the German Academic Exchange Service
2012	*Faculty Prize for Excellent Theses* for the bachelor thesis Faculty for Physics, Mathematics and Computer Science University of Mainz

Research Visits and Internships

09/2017 – 12/2017	Visiting graduate student Department of Combinatorics & Optimization University of Waterloo, Canada Supervisor: Professor Jochen Könemann
03/2012 – 09/2012	Academic visitor Department of Computer Science The University of Waikato, Hamilton, New Zealand Supervisor: Professor Bernhard Pfahringer
08/2011 – 10/2011	Internship at Raytheon Professional Services GmbH Rüsselsheim, Germany

Service

2016, 2017	Judge for the *German Collegiate Programming Contest*
2015	Review for *Mathematical Programming Computation*

Publications and Preprints

04/2019	M. Blumenstock and F. Fischer. A Constructive Arboricity Approximation Scheme. *Preprint, Computing Research Repository*. Cornell University, 2019. `https://arxiv.org/abs/1811.06803v3` Submitted to the 17th Workshop on Approximation and Online Algorithms (WAOA 2019)
01/2016	M. Blumenstock. Fast Algorithms for Pseudoarboricity. In *Proceedings of the Eighteenth Workshop on Algorithm Engineering and Experiments (ALENEX 2016) in Arlington, Virginia, USA, January 2016*, pp. 113–126. Society for Industrial and Applied Mathematics, 2016. `https://doi.org/10.1137/1.9781611974317.10`
12/2014	E. Althaus, M. Blumenstock, A. Disterhoft, A. Hildebrandt und M. Krupp. Algorithms for the Maximum Weight Connected k-Induced Subgraph Problem. In *8th International Conference on Combinatorial Optimization and Applications (COCOA 2014), Wailea, Hawaii, USA, December 2014*. Lecture Notes in Computer Science, Vol. 8881, pp. 268–282. Springer, 2014.

Teaching

2019 summer term	Algorithms & Complexity, seminar
2018 winter term	The Modern Algorithmic Toolbox, seminar Data Structures and Efficient Algorithms, lab course
2017 winter term	Advanced Algorithms, lab course
2017 summer term	Advanced Complexity Theory, substitute lecturer
2016 winter term	Data Structures and Efficient Algorithms, head TA Data Structures and Efficient Algorithms, lab course
2016 summer term	Computability and Formal Languages, head TA Approaching Programming Contests, lab course
2015 winter term	Game Theory, head TA Advanced Algorithms, lab course
2015 summer term	Approaching Programming Contests, lab course

2014 winter term	Game theory, head TA
2013 winter term	Data Structures and Efficient Algorithms, student TA
2013 summer term	Computability and Complexity, student TA
2012 winter term	Formal Languages and Automata Theory, student TA
2012 summer term	Computability and Complexity, student TA
2011 winter term	Data Structures and Efficient Algorithms, student TA

Languages

German, native

English, proficient
Cambridge Certificate in Advanced English, Grade A

Brazilian Portuguese, basics

Latin, Latinum (high-school certificate)

Ancient Greek, Graecum (high-school certificate)

Mainz, July 8, 2019