

David B. Blumenthal

Curriculum Vitae

Personal information

Date & place of birth September 26, 1987, Heidelberg, Germany.
Family status Married, two daughters.
Nationality German.

Academic career

10/2019 – present **Postdoctoral fellow**, *Chair of Experimental Bioinformatics, Technical University of Munich, Germany.*
3/2019 – 9/2019 **Postdoctoral fellow**, *Faculty of Computer Science, Free University of Bozen-Bolzano, Italy.*
11/2015 – 2/2019 **PhD Computer Science**, *Faculty of Computer Science, Free University of Bozen-Bolzano, Italy, grade: “excellent”.*
2/2018 & 11/2018 **Visiting researcher**, *GREYC Research Lab in Digital Science, Caen, France.*
6/2017 – 9/2017 **Parental leave.**
10/2013 – 6/2015 **MSc Mathematics**, *Technical University of Berlin, Germany, grade: 1.0 (very good).*
10/2011 – 11/2013 **MA Philosophy**, *Free University of Berlin, Germany, grade: 1.0 (very good).*
9/2010 – 6/2011 **Erasmus exchange**, *University of Edinburgh, United Kingdom.*
10/2009 – 8/2013 **BSc Mathematics**, *Free University of Berlin, Germany, grade: 1.4 (very good).*
10/2007 – 8/2011 **BA Philosophy**, *Free University of Berlin, Germany, grade: 1.0 (very good).*
2007 **Abitur**, *Ott-Heinrich Gymnasium Wiesloch, Germany, grade: 1.0 (very good).*

Work experience outside academia

3/2013 – 5/2013 **Intern**, *SAP AG, Berlin, Germany.*
8/2008 – 10/2008 **Intern**, *Stiftung Denkmal für die ermordeten Juden Europas, Berlin, Germany.*

Awards and funding

11/2015 – 2/2019 **PhD grant**, *Faculty of Computer Science, Free University of Bozen-Bolzano.*
2017 **Best paper award**, *GbR 2017, Capri, Italy, awarded for “Exact computation of graph edit distance for uniform and non-uniform metric edit costs”.*
2015 **MSc award**, *Institute of Mathematics, Technical University of Berlin.*
12/2007 – 6/2015 **Scholarship**, *German Academic Scholarship Foundation.*

Publications

Journals 11
Proceedings 7

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Supervision

MSc students	2
BSc students	2
Student assistants	2

Teaching experience

WS 2020/21	Einführung in die Bioinformatik I , <i>Technical University of Munich</i> , BSc Bioinformatics, lab coordinator & examiner.
SS 2020	Einführung in die Bioinformatik II , <i>Technical University of Munich</i> , BSc Bioinformatics, lab coordinator & examiner.
WS 2017/18	Mathematical Methods for Experimental Science , <i>Free University of Bozen-Bolzano</i> , BSc Computer Science, teaching assistant.
WS 2016/17	Data Structures and Algorithms , <i>Free University of Bozen-Bolzano</i> , BSc Computer Science, teaching assistant.
WS 2015/16	Calculus , <i>Free University of Bozen-Bolzano</i> , BSc Computer Science, tutor.

Fields of expertise

General	Design, development, implementation, and experimental evaluation of graph-based algorithms for biomedical applications and general data management problems.
	<ul style="list-style-type: none">– Graph edit distance and applications.– Network-based drug repurposing and disease module mining.– Research evaluation and reproducibility.
	<ul style="list-style-type: none">– Enumeration with dissimilarity.– Simulation, modeling, and detection of epistasis.– Federated biomedical artificial intelligence.

Academic services

PC Member	HCC 2019
Reviewer	Nature Computational Science, BioData Mining, Information Sciences, Pattern Analysis and Applications, European Journal of Operational Research, Pattern Recognition Letters, Information Systems Frontiers, ICPR 2018
External reviewer	VLDB 2017, EDBT 2017, ICDE 2016
Co-founder and head of steering committee	AIme registry for artificial intelligence in biomedicine

Software

AIme	Online registry for biomedical artificial intelligence methods.
CoVex	Online systems medicine platform for COVID-19 drug repurposing.
EpiGEN	Python pipeline for simulation of epistasis data.
GEDLIB	C++ library for graph edit distance computation.

Formal languages

Advanced	C++, Python, \LaTeX
Basic	C, Java, R, MATLAB, Bash, HTML, CSS, SQL

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———— Natural languages

Mothertongue German
Fluent English, Italian
Basic French, Latin

———— Non-academic interests

- Music
- Running
- Literature
- Guitar
- Cycling
- Cinema