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).

▬▬ Further work experience

10/2009 – 9/2014	**Student assistant**, *Institute of Philosophy, Free University of Berlin*, Berlin, Germany.
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*.

▬▬ Peer reviewed publications

Journals	14
Proceedings	7

Supervision

MSc students	2
BSc students	2
Student assistants	2

Fields of expertise

Computer science — Design, development, implementation, and experimental evaluation of graph-based algorithms for biomedical applications and general data management problems.

- Network-based drug repurposing and disease module mining.
- Federated biomedical artificial intelligence.
- Graph edit distance and applications.

- Simulation, modeling, and detection of epistasis.
- Enumeration with dissimilarity.
- Enumeration with dissimilarity.

Philosophy — Meta-scientific questions.

- Effect of quantitative research evaluation on academia.

- Measures to counter reproducibility crisis in field of biomedical AI.

Academic services

PC member	HCC 2019
Journal reviewing	Nature Communications, Nature Computational Science, BioData Mining, Information Sciences, Pattern Analysis and Applications, European Journal of Operational Research, Pattern Recognition Letters, Information Systems Frontiers, Heliyon, The Lancet Digital Health
Conference reviewing	ICPR 2018, 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.
BiCoN	Systems medicine tool for stratifying patients while elucidating disease mechanisms.
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

Natural languages

Mothertongue	German
Fluent	English, Italian
Basic	French, Latin

Non-academic interests

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