

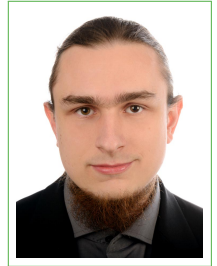
Thomas Gatter

Curriculum Vitae

Einsteinstr. 18
04229 Leipzig
Germany

☎ +49 (0) 1525 4020325
+49 (0) 341 97 16636

✉ thomas@bioinf.uni-leipzig.de



Education

Feb. 2022

Dr. rer. nat., Bioinformatik, Leipzig University, Germany

- final grade: *magna cum laude*
- thesis title: "New Algorithms for Fast and Economic Assembly: Advances in Transcriptome and Genome Assembly"

Sept. 2015

M.Sc. Naturwissenschaftliche Informatik, (*Informatics in the Natural Sciences*), Bielefeld University, Germany

- final grade: 1.0
- thesis title: "Integrating Pareto optimization into the dynamic programming framework Bellman's GAP"

Sept. 2013

B.Sc. Kognitive Informatik, (*Cognitive Informatics*), Bielefeld University, Germany

- final grade: 1.2
- thesis title: "Stream Pipelines for Cloudbased BiBiServ2 Services"

2009

Abitur, (*A-Level equivalent*), Lößnitzgymnasium Radebeul, Germany

- final grade: 1.3

Academic Work Experience

Since Nov. 2015
2023

PhD Student/Postdoctoral Researcher, Leipzig University, Germany

- new methods for RNA transcript isoform prediction and quantification
- new methods for hybrid genome assembly
- research on chemical networks
- AI models in graphs
- (birth of two children Jan. 2018 and Jun. 2021)

2014
2015

Research Assistant for Bellman's GAP, Bielefeld University, Germany

- development of the Bellman's GAP algebraic dynamic programming system
- analysis and extension of the framework to support Pareto Products

2011
2014

Research Assistant for BiBiServ, Bielefeld University, Germany

- development and maintenance of the Bielefeld University Bioinformatics Server
- development of cloud-based services

Teaching

Lecturer WiSe 2021/2022, SoSe 2022, WiSe 2022/2023, SoSe 2023
Lecture: Algorithmen und Datenstrukturen I+II (Algorithm and Data Structures)
Lecture: Graphen und biologische Netze (Graphs and Biological Networks)
Lecture: Fortgeschrittene Methoden der Bioinformatik (Advanced Methods in Bioinformatics)
at Leipzig University

Lead of Tutorials	WiSe 2020/2021, SoSe 2021, WiSe 2021/2022, SoSe 2022, WiSe 2022/2023, SoSe 2023 Lecture: Algorithmen und Datenstrukturen I+II (Algorithm and Data Structures) at Leipzig University
E-Learning Support	WiSe 2020/2021, SoSe 2021 Technical design, planning, setup and management of a recording and streaming service for the Bioinformatics Group at Leipzig University
Tutor	WiSe 2016/2017, WiSe 2019/2020, SoSe 2020 Lecture: Algorithmen und Datenstrukturen I+II (Algorithm and Data Structures) at Leipzig University
Tutor	WiSe 2016/2017, WiSe 2017/2018, WiSe 2019/2020 Lecture: Graphen und biologische Netze (Graphs and biological networks) at Leipzig University

Languages

German	Native	<i>first language</i>
English	Fluent	<i>daily practice, international conferences, experience in academic writing, IELTS Academic exam of 8.0 in 2008</i>
French	Basic Level	<i>4 years of school education</i>

Publications

- [1] Ernesto Parra-Rincón, Cristian A Velandia-Huerto, Jörg Fallmann, Adriaan Gittenberger, Thomas Gatter, Federico D Brown, Peter F Stadler, and Clara I Bermúdez-Santana. The genome of the "sea vomit" didemnum vexillum. *Life*, 2021. Submitted.
- [2] Thomas Gatter, Sarah von Löhneysen, Jörg Fallmann, Polina Drozdova, Tom Hartmann, and Peter F Stadler. Lazyb: fast and cheap genome assembly. *Algorithms for Molecular Biology*, 16(1):1–23, 2021.
- [3] Thomas Gatter and Peter F Stadler. Ryūtō: Improved multi-sample transcript assembly for differential transcript expression analysis and more. *Bioinformatics*, 2021.
- [4] Thomas Gatter, Sarah von Löhneysen, Polina Drozdova, Tom Hartmann, and Peter F. Stadler. Economic genome assembly from low coverage Illumina and Nanopore data. In Carl Kingsford and Nadia Pisanti Pisanti, editors, *20th International Workshop on Algorithms in Bioinformatics (WABI 2020)*, Leibniz International Proceedings in Informatics, page 10, Schloss Dagstuhl, 2020. Dagstuhl Publishing, German.
- [5] Manuela M do Almo, Isabel G Sousa, Waldeyr Mendes Cordeiro da Silva, Thomas Gatter, Peter F Stadler, Steve Hoffmann, Andrea Q Maranhão, and Marcelo Brigido. Anti-cd3 stimulated t cell transcriptome reveals novel ncarnas and correlates with a suppressive profile. In *Brazilian Symposium on Bioinformatics*, pages 180–191. Springer, 2020.
- [6] Thomas Gatter and Peter F Stadler. Ryūtō: network-flow based transcriptome reconstruction. *BMC bioinformatics*, 20(1):1–14, 2019.
- [7] Nino Bašić, Sarah J. Berkemer, Jörg Fallmann, Patrick W. Fowler, Thomas Gatter, Tomaž Pisanski, Nancy Retzlaff, Peter F. Stadler, and Sara Sabrina Zemljič. Convexity deficit of benzenoids. *Croatica Chemica Acta*, 92(4), 2019.

- [8] Sonja J Prohaska, Sarah J Berkemer, Fabian Gärtner, Thomas Gatter, Nancy Retzlaff, Christian Höner zu Siederdisen, Peter F Stadler, et al. Expansion of gene clusters, circular orders, and the shortest hamiltonian path problem. *Journal of mathematical biology*, pages 1–29, 2017.
- [9] Jon Ison, Kristoffer Rapacki, Hervé Ménager, Matúš Kalaš, Emil Rydza, Piotr Chmura, Christian Anthon, Niall Beard, Karel Berka, Dan Bolser, et al. Tools and data services registry: a community effort to document bioinformatics resources. *Nucleic acids research*, 44(D1):D38–D47, 2016.
- [10] Thomas Gatter, Robert Giegerich, and Cédric Saule. Integrating pareto optimization into dynamic programming. *Algorithms*, 9(1):12, 2016.
- [11] Michael Gatter, Thomas Gatter, and Falk Matthäus. Currf (codon usage regarding restriction finder): A free java®-based tool to detect potential restriction sites in both coding and non-coding dna sequences. *Molecular biotechnology*, 52(2):123–128, 2012.

Poster

2014

Krüger J, Gatter T, Henke C, Konermann S, Lückner A, Rumming M and Sczyrba A

BiBiCloud - a Cloud Computing Framework for Big Data Bioinformatics. German Conference on Bioinformatics 2014.

Conferences and Workshops

2016

SPP 1738 Summer School for RNA Bioinformatics, *Organizer and Lecturer*, Leipzig University, Germany

○ introduction to RNA bioinformatics for wet-lab biologists

2014

Cloud Computing Tutorial, *Lecturer*, German Conference on Bioinformatics

2014

ELIXIR Curation Hackathon, *Participant*, CBS-DTU, Denmark

○ development of the ELIXIR Tools & Data Services Registry

○ extension of the EDAM annotation vocabulary

○ annotation of a representative set of tools for the BiBiServ