David Schmotz

Elchweg 8, 31303 Burgdorf, Germany | +49 171 2443410 | davidschmotz@gmail.com

Education

University of Cambridge - Part III MASt Mathematics (2023 - 2024)
- Grade: Honours
- Courses: Modern Statistical Methods, Concentration Inequalities, Topics in Convex Optimisation, Information Theory, Statistical Learning in Practice, Advanced Probability.
- Thesis on Differentially Private Synthetic Data, supervised by Prof. Dr. Po-Ling Loh.

University of Göttingen - BSc Mathematics (2020 - 2023)
- Grade: 1.5
- Courses include: Real Analysis, Analytic geometry and linear algebra, Analysis on Manifolds, Numerical analysis and linear algebra, Measure and Probability Theory, Stochastics, Statistical Foundations of Data Science, Optimization.
- Thesis on Conjectures on Empirical Optimal Transport and their Numerical Assessment. Main goal was to simulate the limiting distribution of the Wasserstein-2 distance between uniform point clouds.

ETH Zürich - Visiting Student in Mathematics (2022)
- Graph Theory, Mathematics of Machine Learning, Topology.

University of Göttingen - BSc Applied Computer Science (2018 - 2023)
- Grade: 1.5
- Courses include: Advanced topics on algorithms and data structures, Theoretical Computer Science, Practical course in scientific computing, Ordinary differential equations, Mathematics related programming, Statistical Data Science, Deep Learning with PyTorch.

Experience

Student Researcher - Chair for Scientific Information Analytics at the University of Göttingen (May 2025 - now)
- Teaching assistant for the course „Deep Learning for NLP" and investigating robustness of LLMs.

Stephan Hell fellowship - Max-Planck-Institute for Multidisciplinary Sciences in Göttingen (Oct 2024 - March 2025)
- Research in the lab of Dr. Johannes Söding on a faster overlap-based genome assembler for metagenomic data that uses a Bayesian statistical model to select extensions, the Linclust algorithm for clustering and a novel algorithm to detect repeats in genomes. Implemented in Python and C++.

Teaching Assistant - University of Göttingen (2019-2020, 2022 - 2023)
- Held exercise sessions and graded students homework in the first-year courses „Computer Science 1" and „Discrete mathematics".

Working Student - German Aerospace Center Göttingen (2020 - 2021)
- Research potential speed advantages using the GPU capabilities of the NVIDIA Jetson Xavier at operations related to flutter analysis such as Stochastic Subspace Identification. I used Python (PyTorch), C, Matlab.

Intern and Working Student - ESE GmbH - Hannover (2018, 2019)
- Working on Client projects in PHP and C#. Development of an internal accounting tool with React.

Volunteer - SNNTG e.V. - Hannover (2019)
- Developing iOS+Android App, the CMS and a REST API. Implemented in Swift, Java, React and Node.js.

Co-Founder Fahrpreiserstattung.de (2017 - 2018)
- Startup to automate refund applications for delays of Deutsche Bahn trains. Implemented in PHP and Angular.js.

Scholarships

Stephan Hell Fellowship	2024 - 2025
Deutschlandstipendium	2020
Lower Saxony scholarship	2020, 2021

Academic references

Prof. Dr. Florin Manea	florin.manea@informatik.uni-goettingen.de
Dr. Johannes Söding	soeding@mpinat.mpg.de
Dr. Jan Philip Wahle	wahle@uni-goettingen.de
Prof. Dr. Po-Ling Loh	pll28@cam.ac.uk