

Dr. Daniel Schmitz

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📍 dschmitz89 🏠 Markt 4, 41236 Mönchengladbach



Experience

Sopra Steria

Consultant | since April 2021

Data science consulting in telecommunication networks using neo4j and Python

- Conceptual development and implementation of a network traffic simulation
- Introduction of optimal traffic routing based on combinatorial optimization
- Led a small team of data science students
- Setting up ETL processes in neo4j/Python/SQL and introduction of an open-source dashboard for network performance reporting in neo4j
- Writing of technical solution designs for quotations

Forschungszentrum Jülich

Research Associate | September 2016 - March 2021

Scalable Analysis of large-scale image datasets of human brain sections

- Design and implementation of custom regression models using parallel computing in Python
- Investigation of prognosis uncertainties based on bayesian statistics
- Workflow development for batch processing of big datasets
- Successful supervision of students resulting in conference publications

3con Management Consultants

Data Scientist | April 2020 - May 2020, part-time

Design and backend implementation of a sustainability-driven supply chain management software prototype using Neo4j and Python

Education

Doctor of Philosophy in Physics, University Wuppertal | September 2016 - April 2020

Master of Science in Medical Physics, University Düsseldorf | April 2013 - September 2015

Bachelor of Science in Physics, Univesity Siegen | September 2009 - March 2013

Skills

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|----------|-------------------------|-----------------------|
| • Python | • Optimization problems | • Bayesian statistics |
| • neo4j | • Bash | • Data Storytelling |
| • Scrum | • git | • Data visualization |

Projects

- 🔗 dschmitz89/Polyfit: scikit-learn compatible polynomial regression with shape constraints. 3000 downloads/month.
- 🔗 dschmitz89/spherical_stats: Spherical statistics in Python based on numpy, scipy and numba. 90 downloads/month.
- 🔗 scipy/scipy: Improving the availability of open source nonlinear optimization routines.

Prizes and certifications

- Outstanding PhD Thesis, University Wuppertal
- Neo4j Certified Professional