

# Daniel Schmitz

## Curriculum Vitae

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### Education

since 2017 **M.Sc. Bioinformatics**, *Ludwig-Maximilians-Universität and Technical University of Munich*, Graduation by April 2019. Current Grade: 1.6.

2013–2017 **B.Sc. Bioinformatics**, *Ludwig-Maximilians-Universität and Technical University of Munich*, Grade: 1.6.

2005–2013 **Abitur**, *Friedrich-Schiller-Gymnasium Königs Wusterhausen*, Grade: 1.0.

#### Master's Thesis

Title *Syndrome Prediction by Phenotype Similarity and Its Application to Neurodevelopmental Disorders*

Supervisors Professor Dimitrij Frishman, Chair of Bioinformatics, TUM  
Dr. Sebastian H. Eck, Center for Human Genetics and Laboratory Diagnostics

Description I developed a system assisting geneticists in identifying developmental disorders using phenotypic annotations. Annotations are based on terms from the Human Phenotype Ontology. Suggestions are made by comparing each new case to patients with an already existing diagnosis.

### Practical Experience

#### Vocational

since 2014 **Software Developer/Student Employee**, *Center for Human Genetics and Laboratory Diagnostics*, Planegg.

Assisted in performing genetic analyses in a diagnostic setting focusing on rare diseases and neurodevelopmental disorders and developed software improving their outcomes and lowering their costs.

Detailed Achievements:

- Supported general diagnostic NGS analyses
- Improved downstream analysis by implementing efficient statistical methods
- Developed applications streamlining the analytic workflow by simplifying the integration of multiple diagnostic tools and databases
- Designed and implemented software for the Multiple Integration of Data Annotation Study, exploring the evaluation of NGS data in a diagnostic setting by integrating data from multiple sources.

#### Voluntary

since 2017 **Head of Membership Administration**, *Verein für Corpsstudentische Geschichtsforschung e.V.*

Management of the membership database of a German society concerned with academic history counting 1,100 members.

## Awards

2018 **Member of best.in.tum.**

Promotion programme for the top 2% of students at the TUM Department of Informatics

## Publications

- [1] E Bounda Ndinga, SH Eck, R Brumm, Schmuck M, Schmitz D, Rost I, and Klein HG. *MIDAS GPMS: A flexible gene panel management system*. Poster at ESHG. Milan, 2018.
- [2] Brumm R, Eck SH, Ebert B, Vogl I, Schmitz D, Küçük S, Rath S, Hasselbacher V, Sofeso C, Busse B, Chahrokh-Zadeh S, Marschall C, Mayer K, Rost I, and Klein HG. *A software tool for data Integration in a diagnostic laboratory*. Poster at Genome Informatics. Cold Spring Harbor, NY, 2015.

## Programming & Data Analysis Skills

Basic Rust, C

Intermediate Perl, UNIX shell

Advanced Java, R, Python, SQL, Microsoft Excel, L<sup>A</sup>T<sub>E</sub>X

## Languages

German **Mothertongue**

English **Fluent**

Spanish **Intermediate**

French **Basic**

## Referees

**Prof. Dr. Volker Heun**

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