

# Curriculum Vitæ

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## Personal Data

Name Niclas Joshua Popp  
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Date of Birth 17.09.1999, Bad Windsheim

## Education

2021 – now **M.Sc. Mathematics** Technical University of Munich  
Double Degree, current average grade 1.0  
2021 – now **M.Sc.Eng. Engineering Physics** KTH Royal Insitute of Technology, Stockholm, Double Degree, GPA 5.0/5.0  
2017 – 2021 **B.Sc. Mathematics** with minor in Physics at the Technical University of Munich, passed with distinction (1.5)  
2019 Exchange semester at the National University of Singapore  
2014 – 2017 Junior studies in Mathematics at the Julius Maximilians University Würzburg  
2009 – 2017 Abitur at the Georg-Wilhelm-Steller Gymnasium Bad Windsheim, final grade 1.0

## Research and Working Experience

2020 – now Student research assistant at the Institute of Computational Biology at the Helmholtz Research Centre for Environment and Health in Munich  
2021 Summer internship in Mathematical Biology at the University of Edinburgh  
2017 – 2019 Working student in Data Science at Robert Bosch GmbH

## Teaching

### KTH Royal Institute of Technology, Stockholm

2021 Teaching Assistant (Övningsassistent) for Numerical Analysis for Industrial Economy  
2022 Teaching Assistant (Övningsassistent) for Numerical Analysis for Computer Science

### Technical University of Munich

2020, 2021 Teaching Assistant (Tutor) for Linear Algebra for Computer Science  
2020 Teaching Assistant (Tutor) for Analysis for Computer Science

## Awards

- 2021 DAAD RISE scholarship of the German Academic Exchange Service
- 2017 – now Scholarship of the German National Academic Scholarship Foundation (Studienstiftung des Deutschen Volkes)
- 2017 Winner of a Hans Riegel Prize in Geophysics
- 2017 3rd Place at the Jugend forscht Landeswettbewerb Bayern

## Projects

### Research Projects

- Manuscript Niclas Popp, Jonathan Fiorentino, Antonio Scialdone "*Structural benchmarking for gene regulatory network inference based on single-cell RNA sequencing data*"
- Manuscript Marco Stock, Niclas Popp, Antonio Scialdone "*Gene regulatory network inference from scRNA-seq data by incorporating prior knowledge with graph autoencoders*"
- Bachelor Thesis "*Interaction Preserving Discretization Methods and Applications in Single-Cell RNA Sequencing Data Analysis*", published software package: Multivariate-Discretization.jl<sup>1</sup>, supervised by Prof. Dr. Dr. Fabian Theis, Dr. Antonio Scialdone and Dr. Jonathan Fiorentino
- DAAD RISE Internship "*Stochastic gene expression in mammalian cells*", supervised by Prof. Dr. Ramon Grima

### Course Projects

Facial Expression Recognition Using Topological Data Analysis (SF2956 Topological Data Analysis), A Parallel Implementation of the Spectral Clustering Algorithm (SF2568 Parallel Computations for Large-Scale System), Exploring Neural Ordinary Differential Equations (DD2424 Deep Learning in Data Science)

## Programming Skills

- Advanced Julia
- Good Python, Matlab, R, MPI
- Basic C, Java Script

## Language Skills

- Native German
- C2 English
- B1+ French, Swedish
- A1 Spanish, Chinese