



# Maximilian Müller

Machine Learning Researcher

- 01 June 1995
- Tübingen and Munich, Germany
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- LinkedIn
- Twitter

## Languages

- German
- English
- Spanish

## IT Skills

- General Python
- TensorFlow and TF Probability
- Pytorch
- Sklearn
- General R
- SQL
- AWS, AWS IoT, Google Cloud
- Version control with Git
- Docker

## Education

### PhD Studies

since 2021 **Machine Learning PhD Student** University of Tübingen, Germany  
Safe and reliable ML, Generalization, Optimization. Supervisor: Matthias Hein. Part of the ELLIS program

### Master and Bachelor Studies

2018 – 2021 **Master Studies in Physics** LMU Munich, Germany  
Machine Learning for Physics and Plasma Physics  
**Master Thesis** ( $\emptyset$  1, 0) Max Planck Institute for Plasma Physics  
Topic: Uncertainty quantification with Bayesian Neural Nets for Machine Learning - based fluid simulations

2019 – 2020 **Master Studies in Data Science** ( $\emptyset$  9.6/10) Barcelona GSE, Spain  
NLP, Machine Learning theory, Stochastic Optimization and Reinforcement Learning, Bayesian Methods, Sparse Linear Algebra. Highest final grade of my cohort  
**Master Thesis** ( $\emptyset$  9.5/10)  
Topic: Scalable Inference for Crossed Random Effects Models

2014 – 2018 **Bachelor Studies in Physics** ( $\emptyset$  1, 2) LMU Munich, Germany  
Focus: Plasma Physics and Medical Physics  
**Bachelor Thesis** ( $\emptyset$  1, 0) Max Planck Institute for Plasma Physics  
Topic: Simplified Calculation of Electron Cyclotron Current Drive Efficiency in Reactor-size Plasmas

2016 **Exchange Semester** Universidad Nacional de Colombia  
During 4th semester, supported by PROSA LMU scholarship

### High School

2005 – 2013 **High School - Abitur** ( $\emptyset$  1, 0) Gymnasium Geretsried, Germany  
Focus: Physics, Highest final grade of my cohort

## Professional Experience

2020 - 2021 **Research Assistant in Bayesian Statistics** Bocconi University  
Development of scalable computational algorithms for Bayesian statistics.

2019 **Junior IT Consultant** TNG Technology Consulting  
Developed and evaluated investing strategies on indices using Python during 3 month internship. Also set up end-to-end architecture for IoT-Showcase using AWS and Typescript.

2018 **Working Student in Optics** Toptica Photonics AG  
Developed experimental setup for doppler-free spectroscopy of iodine in 8 month project.

2018 **Research Internship in Particle Physics** University of Alberta, Canada  
Simulated the Gamma background of a bubble chamber with the C++ based program Geant4.

2016 – 2017 **Teaching Assistant** LMU Munich  
Tutor for undergraduate course about mathematical methods for physics and laboratory supervisor for medical students in their physics laboratories.

## Awards and Scholarships

2020 **Master's Thesis selected for BGSE Voice Blog**  
*As part of the series for exceptional Master's projects ([link](#))*

since 2013 **Member of Max Weber Program**  
*Scholarship for gifted students in Bavaria*  
Includes soft-skill seminars, summer schools and language courses

2013 **TUM award for seminar thesis**  
*Visitor jury price for the best poster at students conference*

2013 **High School awards in Maths and Physics**