

## Education

### M.Sc. Mathematics in Data Science

Admitted

Oct 2025 – Oct 2027  
Technical University of Munich

### B.Sc. Informatik

GPA: 3.6 (US), 1.6 (GER) — Minor: Mathematics

Oct 2021 – May 2025  
Technical University of Munich

### High school diploma (Abitur)

GPA: 3.9 (US), 1.1 (GER)

Sep 2013 – Jul 2021  
IKG Leinfelden

## Work / Research Experience

### Bachelor's thesis

Chair of Scientific Computing, TUM — Grade 100%

Oct 2024 – Feb 2025  
Munich, GER

- Research on node-level parallelization of high-fidelity molecular dynamics simulations
- Efficient framework on multi-node simulator, demonstrating novel parallelization methods

Tech Stack: C++, C, Slurm linux cluster, Paraview, MPI — Links: [Thesis](#)

### Research Intern at "AI Factory Bavaria"

Chair of Robotics, Artificial Intelligence and Real-Time Systems, TUM

Feb 2024 – Aug 2024  
Munich, GER

- Research on task and motion planning of mobile base + manipulator robots
- ROS-package for combined motion planning yielding up to double motion efficiency

Tech Stack: ROS, C++, MoveIt, Rviz, Ubuntu — Links: [AI Factory Bavaria](#)

### Software Engineer Working Student

Entrix Energy

Dec 2022 – Jul 2023  
Munich, GER

- Architecting optimized algo-testing service using historic energy market behaviour
- Facilitated revenue forecasting and optimized development of the trading algorithm

Tech Stack: AWS, Python, Typescript — Links: [Entrix Energy](#)

## Extracurricular Activities

### Project: Quantitive Trading using ML models

Apr 2025 - Present

- Fetch data from Bybit API, retrieve features, train models and backtest / live mock trade strategies
- Trained transformer model on predicting midprice with 75% trend accuracy

Tech Stack: Pytorch, Numpy, Bybit — Links: [GitHub](#)

### Project: Pytorch toolkit

Jul 2025 - Present

- Python package for seamless training, evaluation and visualization using Pytorch
- Significant code reduction and efficient tuning

Tech Stack: Pytorch, Numpy — Links: [GitHub](#)

### Network / System Administrator

Voluntary administrator for student dormitory

Apr 2024 - Present  
Munich, GER

- Implementing / maintaining services within the dormitory: dorm management software, cloud storage and WPA's

Tech Stack: Proxmox, VLAN, PfSense, Wireguard, Debian — Links: [Dormitory](#)

**Leader and Organizer**

30th Kobe International Students' Symposium

Dec 2024  
Osaka, JPN

- Planned / implemented bilingual (JP and EN) symposium aimed at at developing leadership and intercultural competency, hosted by Kobe University

Links: [KISS \(Translated\)](#), [Course description](#)

**Hackatum 2023**

Invited to discuss solution at Check24 HQ

Jun 2023  
Munich, GER

- Developed a performance enhanced distance and rating based craftsman comparison algorithm

Tech Stack: C++, Redis, NextJS — Links: [GitHub](#)

**START Hack 2023**

Europe-wide event with 1500 participants

Mar 2023  
St. Gallen, SWZ

- Developed an user-experience centered android application for extending the mordern use of broadcast TV (Sunrise Challenge)
- Core idea: Enhance user interaction with the platfrom and other users to enrich the user experience, whilst enabling personalized ads for increased revenue

Tech Stack: Go, SQLite, React Native — Links: [Demo Video](#), [GitHub](#)

**Skills**

**Programming Languages**  
**Expertise and Tools**  
**Languages**

C++, Python, C, Java, Dart, Go, JS, TS, OCaml  
Machine Learning, Optimization, AWS, Design Patterns, Git, OS, DBMS, Nu-  
meric Programming, Energy Sector  
Fluent in German, Japanese and English