

Tjark Sievers

tjarksievers@icloud.com tjarksievers.de github.com/Ruberhauptmann

Education

- M.Sc. Physics**, University of Hamburg - Grade: passed with distinction 2025
- 4/2024 - 7/2024: Stay at Uppsala University
 - Thesis: Superconducting Phase Stiffness and Coherence Length From a Finite Momentum Pairing Constraint
- B.Sc. Physics**, University of Hamburg - Grade: 1.47 2022
- Abitur**, Werner-Heisenberg-Gymnasium - Grade: 1.5 2017

Experience

- PHYSnet, University of Hamburg** 11/2021 - 3/2024
- Student employee
- Managed IT hardware inventory (PCs, laptops, monitors), including intake, labeling, and distribution
 - Designed and developed a Django-based web application to automate asset management workflows, reducing manual effort and errors
 - Containerized the application with Docker and implemented CI pipelines in GitLab for streamlined deployment and testing
 - Provided user support for the Physnet compute cluster, assisting researchers with job submissions, software environments, and troubleshooting
- 3S/HiTeC e.V.** 5/2019 - 9/2021
- IT support
- Delivered first and second-level IT support for 150 schools with around 15,000 devices
 - Acted as Change Manager for on-site IT infrastructure upgrades and rollouts
 - Installed and maintained Linux servers (Ubuntu) and clients (Xubuntu, Windows 10)
 - Built and deployed custom Linux images and automated installation processes with Ansible and Docker
- Musikakademie Alteglofsheim** 9/2017 - 8/2018
- Volunteer service in culture and education

Projects

- quant-met** (Python)
- github.com/Ruberhauptmann/quant-met
- Software package to study superconductivity in flat-band and multiband lattice systems
 - Used to run parallelized parameter scans on the PHYSnet compute cluster
 - Fully tested with extensive unit and regression tests
- saboga** (Python, FastAPI, MongoDB, React, TypeScript)
- saboga.tjarksievers.de
- Full-stack web app for exploring data from BoardGameGeek
 - Collects and analyzes data on 30,000 ranked games and 9 million historic user ratings
 - Backend built with FastAPI and MongoDB for efficient data ingestion and querying
 - Frontend built with React for data exploration

Skills

Languages: Python, C++, Bash

Web Development: Django, FastAPI, HTML/CSS, React

DevOps: Docker, GitLab CI/CD, GitHub Actions, Ansible, Grafana

Databases: MongoDB, MariaDB/MySQL