



Student Assistant (HiWi) Research Software Development



40-80 HOURS / MONTH

part-time student position

FLEXIBLE HOURS

compatible with your studies

About the position

We are looking for a motivated student to support the development of software for NOMAD, an open-source platform for FAIR research data. You will extend NOMAD Oasis through custom Python plugins for scientific data ingestion, metadata extraction, visualization, and AI-assisted workflows in materials science.

Your responsibilities

- Develop and maintain Python-based NOMAD plugins
- Build parsers, schemas, APIs, and data-processing workflows
- Improve accessible workflows for scientific data management
- Work with structured data and semantic metadata
- Write tests and maintain GitHub Actions CI/CD pipelines
- Support containerized deployment and research infrastructure
- Translate researchers' workflows into robust software
- Write clean, documented, and maintainable code

What you bring

- Currently enrolled in a bachelor's or master's degree program at the University of Bayreuth with a background in Computer Science, Software Engineering, Material Informatics, or a related field
- Good programming skills in Python
- Familiarity with Git, GitHub, and Linux
- Basic understanding of software engineering and data structures
- Ability to work independently and communicate in English

Helpful, but not required

- Docker / Docker Compose; Docker Swarm or Kubernetes
- GitHub Actions and CI/CD; testing and code quality tools
- REST APIs, databases, or web technologies
- Scientific data processing and visualization
- Ontologies, semantic web technologies, or knowledge graphs
- Research data management and FAIR principles

What we offer

Hands-on experience with open-source research software, cloud-native technologies, scientific data infrastructure, and AI-assisted tools. You will work in a friendly, collaborative research environment with guidance on the NOMAD stack and plugin architecture.

Interested?

Send a short introduction and your CV.
Optional: transcript and GitHub/project links.

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