

# THESIS / RESEARCH ASSISTANT

Development of a Virtual Research Environment for the Engineering Sciences

## Background

At the Institute for Applied Materials (IAM) at KIT, the open source software Kadi4Mat (<https://kadi.iam.kit.edu>) is being developed as part of several research projects. Kadi4Mat is a virtual research environment that aims to support researchers from different disciplines in the efficient collection, management and reuse of research data.



## Your task

As part of a project, bachelor's/master's thesis or a student job, concepts and corresponding implementations should be developed in order to advance the development of Kadi4Mat and tools based on it (automated workflows, virtual file systems, etc.). This may include the development and integration of different interfaces (REST, gRPC, CLI, etc.) or graphical user interfaces (JS/CSS/HTML, Vue.js, Qt, etc.). The choice of topic is flexible and can be adapted to the interests and competences of the student.

## Prerequisites

Knowledge of Linux and Git is an advantage for working on the topic, as well as Python, C, C++ or common web technologies and corresponding frameworks, depending on the area of application.

## We offer

- Comprehensive support
- Modern workstations and high-performance computers as a working environment
- Productive and dynamic atmosphere in a team
- Cooperation with international research groups
- Career prospects as a junior researcher

## Interested?

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