



Software Tools Developer Hiwi

Job vacancy: From now on

Entry from the 08.08.2025

Position number 119372

Description

About Us

The Institute for Nuclear Waste Disposal (INE) at KIT drives cutting-edge research in radiochemistry and X-ray spectroscopy. Work spans from X-ray absorption/emission-based investigations using the globally unique NEXT spectrometer at the CAT-ACT beamline to spectroscopic methods supporting actinide and lanthanide speciation and behavior.

Role Overview

We're seeking a passionate Software Tools Developer to seamlessly take over, maintain, and enhance bespoke Python-based tools designed for beamline support and data analysis. The right candidate will collaborate directly with physicists and chemists, ensuring that software solutions advance both functionality and scientific rigor.

Key Responsibilities

- Inherit, maintain, and evolve existing Python-based tools like dashboards, analysis tools etc for beamline support, experiment control, and post-processing.
- Develop and integrate new software components to streamline spectroscopy workflows and enhance UX for scientists.
- Ensure robustness through automated testing, version control, documentation, and deployment in beamline environments (Linux/controlled area systems/Windows sometimes).
- Contribute to user documentation, training resources, and software lifecycle management.

Essential Qualifications

- Proven experience in Python and C++ development
- Comfortable working across Linux (and possibly Windows) environments with command-line, scripting, and automation tools.
- Familiar with standard software development practices: version control (e.g., Git), testing, documentation, and CI/CD workflows.
- Good communication skills to bridge the gap between software engineering and scientific research.
- Strong analytical skills and a methodical approach to problem-solving, especially in interdisciplinary settings.
- Experience with GUI frameworks or user interface enhancements (e.g., PyQt, web frontends).
- Please send your CV, sample code or portfolio (e.g., GitHub), and a brief note about your background or interest in the role to: anusha.shivaraju@kit.edu

Interested?

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We are an equal opportunity employer. All qualified applicants will be considered for employment without regard to race, color, religion, sex, age, or national origin.

we are reviewing applications immediately, and the position will be filled as soon as we find the right candidate.

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| Job type/category | Working student |
| Field of study preferred | Engineering sciences <i>Informatics</i> <i>Engineering Education</i> <i>Information System Engineering and Management</i> |
| Favored career stage | Student |
| Location/region | Karlsruhe city, Karlsruhe region |
| Sector | IT & information technology |
| Language at workplace | German and english |
| Is the position suitable for international students with B2 German language skills? | Yes |
| Type of company | Scientific institution |
| Home office | Homeoffice possible |

Contact

Mrs. / Ms. Anusha Shivaraju

Institut für Nukleare Entsorgung

Karlsruhe

E-Mail: Please log in to read the stated e-mail address

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