

## Student Assistant Positions: Designing Teaching Projects for Computational Science

*Course of Study: Mathematics, Computer Science, Physics or similar*

The Uncertainty Quantification (UQ) research group at KIT is currently advertising two student assistant positions (HiWi positions) to support the UQ group in developing novel, digital teaching materials for interdisciplinary computational science projects.

### Topic

In Fall 2024, the UQ group plans to offer KIT students a special "Modeling Week" as part of MathSEE (KIT Center for Mathematics in Sciences, Engineering, and Economics) in Fall 2024. As part of that program, students will build advanced scientific applications covering the entire range from numerical simulation via high-performance computing to uncertainty quantification using a new technology that significantly simplifies the interfaces.

In this assistantship, you will be part of a team building dedicated teaching materials for the MathSEE Modeling Week 2024. Since we cover interdisciplinary work, your focus within the team can be statistical aspects, computational science, or scientific software development. We will use modern techniques to ensure the course material remains valid long-term and becomes available at other institutions beyond KIT.

### Tasks

As part of the team developing teaching materials, you will be tasked with

- designing presentation material for theoretical aspects,
- developing reference implementations in scientific software, covering uncertainty quantification and numerical simulation,
- and performing test runs on cloud / high-performance computers.

You should have experience in one of the involved fields: Statistics / uncertainty quantification, mathematical modeling, numerical simulation methods, or high-performance computing. Basic programming experience is required (preferably in Python).

### What we offer

Two paid student assistant positions for a duration of 6 months, 40 hours / month, starting at your earliest convenience. The exact duration and work load are negotiable.

Does this sound interesting to you? Feel free to contact us with any questions!

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