



Karlsruhe Institute of Technology



KIT | Institute AIFB | P.O. Box 6980 | 76049 Karlsruhe, Germany

To all interested students,



**Institute of Applied Informatics
and Formal Description Methods**

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Student Research Assistant, HiWi (f/m/d)

Job Description:

The research assistant will support the scientific staff of the Systems, Data, Simulation & Energy (SYDSEN) and Cooperative Autonomous Systems (CAS) research groups on the **Project Tyre Road Noise: Data-based study of effects on controlled and real drive noise emission**, funded by the German Federal Ministry of Digital and Transport, BMDV. We specialize in WP6 of the project, dedicated to the preparation and advancement of (AI) methodologies, focusing on research in statistical and machine learning techniques for noise modeling and analysis of determinants. Moreover, our research endeavors will extend to simulation methodologies, e.g., agent-based simulation.

The tasks include:

- Research on quantitative methods for road traffic noise modeling
- Reviewing literature relevant to the project and the research that we do
- Implementing proofs of concept
- Communication with project partners and demonstrators
- Documenting all tasks and outcomes

Qualifications and Skills:

We seek highly motivated Bachelor or Master students in computer science, industrial engineering, statistics and econometrics, or related fields, preferably at KIT.

- Proficiency in Python and R, and readiness to learn other programming languages as needed
- Basic understanding of data science
- Bonus: familiarity with time series analysis, transportation science, simulation and modeling
- Strong communication skills for collaboration with diverse project partners
- Adequate English language proficiency for international teamwork

We offer:

- A part-time contract offering 30 to 60 hours per month, with salary tailored to the level of educational attainment. The initial contract duration is flexible, ranging from 3 to 6 months, with high likelihood for extension.
- Flexible working hours, also working at home possible.
- A variety of tasks so that you can learn a lot. Also, state-of-the-art research can be performed and will be published together with the student.

Visitor Address:	Postal Address:
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76133 Karlsruhe, Germany	76049 Karlsruhe, Germany

How to apply:

Please send your application to lazarova-molnar@kit.edu with the following documents:

- Cover letter (2 to 3 sentences) in the email to explain your motivation
- CV/Resume (max. 2 pages).
- List of courses or workshops taken
- Optional: Any relevant coding or project portfolio.

The payment is based on the rates of the state of Baden-Württemberg for academic assistants. The employment is temporary.