UNIVERSITÄT GREIFSWALD
Wissen lockt. Seit 1456

# Job vacancy

## Research Assistant - Institute of Data Science 25/Sa14

University of Greifswald, 01 July 2025 | deadline: 27 July 2025

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Within the **Machine Learning Group** at the University of Greifswald's **Institute of Data Science** in the Faculty of Mathematics and Natural Sciences, a position as a **full-time**

**Research Assistant**

is available **for earliest possible appointment** for a **limited period of 36 months**. There is an option to extend the contract. Payment will be made according to pay group 13 *TV?L Wissenschaft*. The position is suitable for part-time employment.

So-called Physics-Informed Neural Networks (PINNs) have so far achieved great success in solving partial differential equations (PDEs). They are used in particular for problems in which little experimental data is available and analytical and numerical methods are unsuccessful. However, as the difficulty of the differential equations increases, so too do the problems with the application of PINNs. The aim of this position is to develop PINN-like algorithms for solving PDEs with increasing difficulty, especially for coupled systems of PDEs.

**Job description:**

- Scientific services in research and teaching
- Development of algorithms in the field of physics-informed machine learning for solving complex partial differential equations
- Close cooperation with colleagues and departments who have provided the equations to be solved
- Carrying out simulations to evaluate the developed algorithms
- Evaluation of the algorithms using suitable statistical methods
- Publication of research results in journals and at conferences
- Collaboration in organisational and representative tasks

Tasks will be assigned that are conducive to the preparation of a doctorate, habilitation or equivalent qualification.

**Job requirements**

- University degree (master's or equivalent) in computer science, physics, mathematics or a closely related discipline with at least good grades when employment starts
- Very good programming skills
- Good knowledge of the basics of machine learning and deep learning
- Knowledge of Python or willingness to learn Python
- Good knowledge of partial differential equations
- Excellent English language skills
- Independent and goal-oriented way of working
- Ability to work in a team and very good communication skills

Desirable skills

- Doctorate in computer science (if working towards a habilitation)
- Knowledge of theoretical physics
- Experience in working with libraries and tools for deep learning (e.g. PyTorch, Keras)
- Knowledge of Git or other version control software
- German language skills

**We offer**

- Work on an exciting topic in a young and rapidly growing field of research
- A communicative, creative and appreciative working atmosphere
- BRAIN, a dedicated computing cluster with a powerful and flexible environment for scientific computing. BRAIN has various partitions that are optimised for different workloads, as well as a comprehensive service that supports you in using the resources.
- Direct support as one of the first members of the Machine Learning Group in Greifswald
- At gain-group.de you can get an impression of the junior research group from which the Machine Learning Group emerged.

This vacancy is open to all persons, irrespective of gender. Severely disabled applicants with the same qualifications will be considered with preference.

In accordance with § 68(3) PersVG M-V, the Staff Council will only be involved in staff matters of the academic or artistic staff on request.

Unfortunately, application costs (e.g. travel expenses for interviews) will not be reimbursed by the state of Mecklenburg-Vorpommern.

Please note that by submitting your application, you provide your consent pursuant to data protection law for our processing of your application data. Further information about the legal bases and the use of your data can be found here.

Please send applications via email as one PDF file to the following address **by 27 July 2025,** with reference to job advertisement **25/Sa14**. The application should include a detailed CV, a cover letter, copies of bachelor's and master's certificates, and a list of grades from the master's degree course. Questions can also be answered by

**Universität Greifswald**
**Institut für Data Science**
**Frau Prof. Dr. rer. nat. Josephine Thomas**
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HR EXCELLENCE IN RESEARCH