

**Research Assistants (m/w/d)
in the field of Open Source Intelligence / Adaptive-learning
at the Research Institute CODE**

(Remuneration according to pay group E13 TVöD)

wanted for the next possible date for a limited period of 2 years (with the possibility of extension to a total of 4 years) in full-time.

At the **Universität der Bundeswehr München** the research institute "Cyber Defence and Smart Data" (RI CODE) is being expanded to become one of the largest research institutes in the field of IT security in Europe. Its goal is to realise innovative technical innovations and concepts for the protection of data, software and IT systems. For more information about CODE, please visit www.unibw.de/code.

As part of a new professorship, Prof. Dr. Eirini Ntoutsis will establish a research lab for "*Artificial Intelligence & Machine Learning*" (AIML) at RI CODE and the Faculty of Computer Science starting in August 2022 to research and develop methods and algorithms for (data-driven) Artificial Intelligence. The goal of the lab (<https://aiml-research.github.io/>) can be summarized as designing intelligent algorithms that learn from data continuously following the cumulative nature of human learning, while ensuring that what has been learned helps driving positive societal impact. We are currently offering positions in the areas of adaptive learning, responsible AI and generative AI.

This position focuses on adaptive learning. Traditional machine learning (ML) is primarily based on static data, and the resulting models are inadequate for the ever-changing environments found in many modern applications such as social media, IoT, autonomous vehicles, etc. Adaptive ML continuously adjusts ML models to the stream of input data by enabling adaptation to new information while avoiding catastrophic forgetting. The overall goal of this project is to develop new methods and algorithms for continuous learning, especially in the presence of unbalanced populations. Moreover, to develop model inspection and debugging methods using e.g., XAI.

Your tasks:

- Research and development of AI/ML methods
- Experimental evaluation of AI/ML methods, including prototype development
- Literature review
- Publication and presentation of scientific results in international conferences and related journals
- Contribution to the teaching activities of the group
- Contribution to the research activities of the group

Requirements:

- Applicants should hold an M.Sc. or Diploma in Computer Science or a related discipline

Desirable:

- Strong background in Machine Learning, Artificial Intelligence and Data Mining techniques
- Strong programming skills (preferably Python)
- Very good knowledge of AI frameworks like TensorFlow, PyTorch, Keras
- Experience with sequential data / temporal data/ non-stationary data / data streams
- Experience with online learning / adaptive learning / continual learning / data stream mining
- Excellent written and verbal communication skills in English (shown for example by published work or a master thesis)
- Knowledge of German is a plus, but is not obligatory
- Critical thinking, quality-oriented and independent work, professional commitment
- Willingness to learn, creative and cooperative

We offer:

- An optimal research and supervision environment for doctoral studies and academic development, excellent networking opportunities
- Pleasant working environment in a friendly and committed team
- State-of-the-art IT equipment
- Active promotion of your scientific development and your doctorate
- Multi-year contract with the aim of extension according to the Wissenschaftszeitvertragsgesetz
- Possibility of further training in higher education didactics and certification
- Grouping into pay group E13 is carried out in compliance with § 12 TVöD with regard of the actual activities to be performed and the fulfillment of the personal and collective agreement requirements
- In the case of corresponding qualifications and the transfer of corresponding higher-value activities, classification in pay group E14 is possible
- Mobile working is possible after consultation with the head of the department
- Attractive, diverse sports facilities on campus, as well as the general advantages of the Munich metropolitan region in terms of high quality of life and varied leisure activities, a campus university with a very good infrastructure, in-house crèche and kindergarten (parent initiative)

The employment can also be part-time if desired. The Universität der Bundeswehr München aims to increase the proportion of female scientists and employees; applications from women are expressly welcomed. Persons with disabilities will be given special consideration if they are equally qualified.

Have we aroused your interest?

Then send your application with the usual documents (cover letter, résumé, certificates) in PDF format by e-mail with the subject line "Application AI/ML – Adaptive learning" to:

eirini.ntoutsi@unibw.de

By submitting your application, you agree that your personal data may be stored, processed and forwarded to the departments involved in the application process for the purposes of the application. You can find more information on data protection under the following link:
<https://www.unibw.de/home/footer/datenschutzerklaerung>

We are very much looking forward to your application!