Universität der Bundeswehr München

Two positions for PhD Students (m/f/d)
At the Research Institute Cyber Defence und Smart Data (CODE),
Biometrics & Machine Learning (BioML)

(Salary Group 13 TVöD)

Sought for the earliest possible date, limited to four years, **full-time or part-time**.

The University of the Bundeswehr Munich is firmly established in both the national and international research landscape. As a campus university with excellent basic facilities, it offers the best conditions for high-quality teaching and research. The Cyber Defence and Smart Data Research Institute (CODE) is a central scientific institution of the University of the Bundeswehr Munich. CODE researches cyber security in all its dimensions and offers a unique research environment. Since 2013, CODE has been bringing together experts from various scientific disciplines in the field of cyber and information space. The objective is to realise innovative technical innovations and concepts in cyber security in order to protect data, software and IT systems. Further information is available at www.unibw.de/code

The Biometrics & Machine Learning (BioML) research group, led by Prof. Dr. Marta Gomez-Barrero, is offering two PhD positions in the HeartbeatID project to conduct research into privacy-friendly biometric systems based on heartbeats. New algorithms for recognising individuals based on their heartbeat and for increasing the data protection of biometric systems are being developed, based on the latest technology in the field of biometric recognition (i.e. primarily deep learning architectures) and cryptography (i.e. post-quantum cryptography, differential privacy). Further information is available at http://www.unibw.de/bioml-en

Your tasks:

- Collaboration in university teaching, primarily in the supervision and implementation of exercises, seminars and practical courses
- Research, development and evaluation of methods for biometric recognition based on the heartbeat
- Research, development and evaluation of methods for the protection of biometric data: a combination of machine learning, deep learning and cryptographic methods
- Publication and presentation of scientific results at international conferences and in relevant journals
- Participation in the acquisition of third-party funding

Qualification requirements:

- Completed university degree (Master's, Magister or Diploma) in computer science or comparable degree
- Solid programming skills, ideally in Python
- Knowledge of IT security, especially machine and deep learning as well as cryptography
- Very good written and spoken English skills (C1 or comparable) for working in an international environment

What we expect:

- Initiative in working on the project and willingness to work independently on scientific tasks
- Openness and enthusiasm for innovative technologies and solutions, combined with a willingness to familiarise yourself with individual specialised areas largely independently
- Critical thinking, quality-oriented and independent work, professional commitment, willingness to learn, creativity and willingness to cooperate.

- Through your overall behaviour, you are committed to the free democratic basic order within the meaning of the Basic Law
- Equality and diversity competence

What we offer:

- An optimal research and support environment for doctoral studies and scientific development, excellent networking opportunities
- A pleasant working environment in a friendly and committed team
- State-of-the-art IT equipment
- Active support for your scientific development and doctoral studies
- It is generally possible to increase the regular weekly working hours to full-time employment (39 hours per week) and to extend the fixed-term contract.
- A campus university with excellent infrastructure, its own crèche and kindergarten (parent initiative), and a family service centre offering advice and assistance to university members to help them better balance family, care and work commitments
- Salary classification up to pay grade 13 in accordance with § 12 TVöD (German public sector pay scale) with regard to the actual, non-temporary nature of the work and the fulfilment of personal and collective agreement requirements
- Working from home is possible in consultation with the project management
- You will work for a recognised and family-friendly employer in a secure economic environment that promotes a healthy work-life balance through flexible working hours and part-time models.
- You will benefit from targeted personnel development and a comprehensive range of training and further education opportunities.
- You will have the opportunity to participate in workplace health promotion programmes.

Part-time employment is also possible upon request. The Bundeswehr promotes professional equality between women and men and therefore particularly welcomes applications from women. In accordance with Social Security Code IX and the Disability Equality Act, we expressly welcome applications from severely disabled persons; individual consideration will be given to whether the requirements of the vacancy are met. The German Armed Forces supports the objectives of the National Integration Plan and welcomes applications from people with a migrant background.

Are you interested in joining us?

Then send your application documents (cover letter, CV, degree and employment certificates, diplomas, references, list of publications if applicable) in PDF format by email by 30 November 2025 with the subject line: ‘Heartbeat ID – PhD position’ to:

marta.gomez-barrero@unibw.de

Additionally required:

- Foreign-language application documents must be accompanied by a certified German translation.
- Foreign educational qualifications must be accompanied by proof of recognition in Germany.

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 your application. Further information on data protection can be found at the following link: https://www.unibw.de/home/footer/datenschutzerklaerung

We are looking forward to your application!