vetmeduni

The Vetmeduni teaches, undertakes research and offers services designed to guarantee the health of animals in Austria. We view our work as our contribution to ensuring human health and the health of our animal companions as well as to the production of healthy food. To help us meet these objectives,

our **University Clinic for Ruminants, Clinical Unit for Herd Health Management** is looking for a

Scientific Project Assistant(Pre-Doc)
PhD student working on "Computer vision for calving prediction in cattle"

Grade:	B1 Prae-Doc
Level of employment:	30 hours per week
Duration of contract:	3 years
Deadline for applications:	11.11.2023
Reference number:	2023/0323

Place of employment: Vetfarm and Campus Vetmeduni, Vienna

The TU Wien, University of Applied Sciences Upper Austria (Campus Hagenberg) and Vetmeduni have launched an interdisciplinary Doctoral School on Precision Livestock Farming ("PLFDoc"), funded by the Austrian Science Foundation (FWF). PLFDoc will focus on application-oriented basic research, in particular on new methods of Explainable Artificial Intelligence (XAI) and Computer Vision technologies for health and welfare monitoring in livestock. The successful candidate will work in an interdisciplinary team as part of PLFDoc.

The PhD thesis focuses on the development of computer vision algorithms for calving prediction. Behaviours that need to be detected to predict calving are, e.g. separation of animals from herd mates, tail raising, restlessness, turning the head toward the abdomen and stepping. A second aim of the study is to get detailed information about the effects of group size and human interventions on cows' behaviour during parturition, and if this affects the validity of automated calving prediction.

Additional PhD advertisements from the Doctoral School can be found at:
www.vetmeduni.ac.at/plf-doc

We are looking for highly motivated candidates who meet the following requirements:

Necessary education, qualifications and knowledge on taking up employment

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- Master or equivalent degree in veterinary medicine, agricultural sciences, computer science, data science, bioengineering or engineering from international renowned institutions of higher education in any of the research field of the Doctoral School (Diplom- or Bachelor+Master with a total of 300 ECTS)
- Good English in writing, reading and speaking (B2)
- Knowledge in data analysis and programming

Desirable qualifications and skills
- Affinity with livestock, preferably in animal handling
- Interest in animal health, welfare and production
- Knowledge in behavioural data analysis
- Experience with sensor use in biology
- Knowledge in computer programming (e.g. C, C++, Python, Java, Matlab, R)
- Ability to conduct research relatively independently
- Experience with deep learning frameworks would be a plus
- Scientific publications would be a plus
- Experience with video game engines and synthetic data e.g. Unreal Engine 5 would be a plus

We offer
- Top university: the Vetmeduni is one of the leading academic institutions in Europe to offer education in and undertake research on veterinary medicine
- Stable employer
- Attractive campus
- Opportunities for further training, both personal and in connection with your career
- Preventive and medical health care
- Diversity- and family-friendly culture
- Childcare facilities, both in term time and during holidays
- Many attractive fringe benefits
- Staff events

Minimum salary
The minimum salaries at universities are governed by a collective bargaining agreement. At the level given above, the minimum salary amounts to EUR 3,277.30 gross per month (based on full-time employment).

Applications
We shall be happy to receive your application, quoting **reference number 2023/0323**, by e-mail to bewerbungen@vetmeduni.ac.at. Please **do not forget to include the reference number**, or we shall not be able to assign your application to the correct position.
Documents to be submitted for admission will include:
- Letter of motivation
- Relevant certificates and diploma supplements of previous studies
- At least 2 letters of recommendation

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- Curriculum vitae

In accordance with § 41 of the 2002 Universities Act, the Vetmeduni is striving to increase the proportion of female staff members, particularly in leadership positions, and to achieve a balanced ratio of men and women on its staff, especially the scientific staff, and would thus welcome applications from qualified females. If women are underrepresented (below 50%), female candidates who are as well qualified as the most appropriate male candidates will be given preference, provided that there is no reason to prefer a particular males candidate.

There is no cost for applying for the position. However, candidates have no rights to reimbursement of any travel and accommodation costs that may arise in connection with their applications.

The Vetmeduni is proud to hold the certificate "hochschuleundfamilie" (university and family) and thus welcomes applications from people with families. We also welcome applications from persons with disabilities.

Further information
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