PhD student in a project on digital animal welfare monitoring

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Department of Clinical Sciences

The Department of Clinical Sciences is responsible for undergraduate education, research and postgraduate education in the scientific fields of veterinary medicine, veterinary nursing and animal science. The department's activities mainly concern our common Swedish domesticated animal species with a focus on Anaesthesiology, Diagnostic Imaging, Animal Care, Epidemiology, Laboratory Animal Science, Surgery, Clinical Chemistry, Medicine and Domestic Animal Reproduction.

Teaching and research within the cross-disciplinary subject in the field of veterinary epidemiology focuses on how veterinary medicine can be utilised to prevent disease and other disorders, thereby promoting animal health and human health, welfare and well-being.

Description

In a recently started collaborative project, together with Sony Nordic, RISE, Växa Sverige and Dalarna University, we will develop and evaluate digital tools to monitor animal welfare in dairy herds. The tool will be built on cutting-edge multi-sensor technology and computer vision. The project is transdisciplinary and the project group has a solid knowledge of animal science, veterinary medicine, epidemiology, qualitative research methods, animal welfare, computer science, artificial intelligence (AI), digitalization, statistics and product development. We are now looking for a PhD-student to join the project group.

The main task for the PhD student is, in addition to pursuing a PhD-education, to develop and validate AI/prediction models for continuous assessment of key indicators of animal welfare based on data on animal welfare assessments, other relevant animal characteristics and output from sensors. The candidate will also be involved in defining what sensor data and ground truth/gold standard data on health and behaviour parameters are needed and in the collection of those.

Qualifications

We are looking for a motivated person with strong quantitative skills. Applicants should either a) hold an MSc degree in Veterinary Medicine/Animal Science/Biology or a similar degree and have a very strong interest in management and analysis of large volume of

data using advanced statistical/machine learning methods/algorithms; or b) hold an MSc degree in Computer Science/Data Science/ Statistics or a similar degree and have a very strong interest in biological applications of data analysis using advanced statistical/machine learning methods/algorithms. You should have a genuine interest in research and in learning to do research.

We place great emphasis on personal qualities such as curiosity, responsibility, and ability to work in a team as well as independently, and on personal suitability for the learning and research tasks. You are fluent in spoken and written English (required) and an ability to communicate in Swedish is an asset.

Place of work:
Uppsala

Forms for funding or employment:
Employment (4 years).

Starting date:
According to agreement.

Application:
We welcome your application no later than 2022-02-04, use the button below.

Your application should be written in English or Swedish and should include, in addition to your CV, maximum one A4 page where you describe why you would like to work with science in general and this project in particular, and a copy of an article or equivalent (e.g. master's thesis, working paper) showing previous research experience. Please provide names and contact information of two reference persons familiar with the applicant's qualifications

To qualify for third-cycle (Doctoral) courses and study programmes, you must have a second-cycle (Master's) qualification. Alternatively, you must have conducted a minimum of four years of full-time study, of which a minimum of one year at second-cycle level.

Applicants will be selected based on their written application and CV, degree project, copies of their degree certificate and transcript of records from previous first and second-cycle studies at a university or higher education institution, two personal references, and knowledge of English. More information about the English language requirements can be found here: www.slu.se/en/education/programmes-courses/doctoral-studies/new-doctoral-students/english-language-requirements/

Please note that applicants invited to interview must submit attested copies of their degree certificate, a transcript of records from previous first and second-cycle studies at a university or higher education institution. Applicants who are not Swedish citizens need to submit an attested copy of their passport's information page containing their photograph and personal details.

Read about the PhD education at SLU at www.slu.se/en/education/programmes-courses/doctoral-studies/

Academic union representatives:

https://internt.slu.se/en/my-employment/employee-associations/kontaktpersoner-vid-rekrytering/

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