



PhD Research Fellowship in machine learning, assessments and learning analytics

Job description

A position as PhD Research fellow in machine learning, assessments and learning analytics is available at the Centre for Computing in Science Education, a Center for Excellence in Education at the Department of Physics.

The fellowship will be for a period of 3 years. Starting date no later than 01.10.2019.

More about the position

[Centre for Computing in Science Education](#) aims to renew science education by integrating the use of computing throughout the education. We develop new curriculum and methods, build an educational research group, and disseminate insights and methods. The ambition of the centre is to become an international hub for the integration of computing in science education.

To this centre we seek a PhD student to focus on using machine learning methods to analyze a rubric-based assessment system for computational problem solving in the sciences. The assessment will be used to collect learning data to categorize solution approaches, to provide students with feedback, and to develop and train machine learning methods for automating categorization and feedback. The PhD student will work closely with a software engineer and a post-doc on the same project.

Qualification requirements

We seek candidates with either:

- (a) a master's degree in mathematics or natural science, preferably in physics, with background in numerical methods and programming; or
- (b) a master's degree in science education research who want to pursue a career with focus on computing in science education.

Candidates with documented experience in scientific computing or machine learning will be preferred.

- The candidate must be motivated to work in a cross-disciplinary environment.
- Fluent oral and written communication skills in English
- Formal admission criteria: <http://www.mn.uio.no/english/research/phd/application/application.html>

Most of the lower grade teaching is done in Norwegian at the Department of Physics, and the candidate must be able to work with Norwegian students. Non-Scandinavian-speaking students must therefore present a realistic plan for how to achieve sufficient proficiency in Norwegian.

The purpose of the fellowship is research training leading to the successful completion of a PhD degree.

The fellowship requires admission to the PhD program at the Faculty of Mathematics and Natural Sciences. The application to the PhD program must be submitted to the department no later than two months after taking up the position. For more information see:

<http://www.uio.no/english/research/phd/>

<http://www.mn.uio.no/english/research/phd/>

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

We offer

- Salary NOK 449 400 - 505 800 per annum depending on qualifications and seniority as PhD Research Fellow (position code 1017)
- Attractive [welfare benefits](#) and a generous pension agreement, in addition to Oslo's family-friendly environment with its rich opportunities for culture and outdoor activities
- Vibrant international academic environment

How to apply

The application must include:

- Application letter including a description of scientific interests and the motivation for applying for the position (max. 1 page)
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of educational certificates, transcript of records and letters of recommendation
- Documentation of English proficiency if needed (please see admission criteria)

- List of publications and academic work that the applicant wishes to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

The application with attachments must be delivered in our electronic recruiting system (please follow the link "Apply for this job"). Foreign applicants are advised to attach an explanation of their University's grading system. Please note that all documents should be in English or a Scandinavian language.

Applicants may be called in for an interview.

Formal regulations

Please see the [guidelines and regulations](#) for appointments to Research Fellowships at the University of Oslo.

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo.

According to the Norwegian Freedom and Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

The University of Oslo has an [agreement](#) for all employees, aiming to secure rights to research results etc.

In accordance with the University of Oslo's equal opportunities policy, we invite applications from all interested individuals regardless of gender or ethnicity. The University of Oslo has a goal of recruiting more women in academic positions. Women are encouraged to apply.

Contact information

Professor Anders Malthe-Soerenssen, e-mail: malthe@fys.uio.no

For technical questions regarding the application system, please contact HR Adviser Elin Thoresen, +47 22 85 71 96, e-mail: elin.thoresen@mn.uio

About the University of Oslo

The University of Oslo is Norway's oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

The research at the Department covers a broad range of subfields within physics and technology: From space research to medical physics. A good proportion of the research is interdisciplinary, and conducted in close cooperation with collaborators in Norway and abroad. Education and teaching are other essential activities. We offer a broad range of courses, and the Department is involved in several study programmes at bachelor's and master's level. Some of the best lecturers in Norway are amongst our employees, and we are proud of our prizewinning teaching and learning environment. The Department has 200 employees, of which 50 are permanent scientific positions. On a yearly basis 20 students complete their Ph.D. and 50 finish their M.Sc. degree.

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