Jobbnorge ID: 225206
Deadline: 6/17/2022
Website: http://www.hvl.no
Scope: Fulltime
Duration: Fixed Term

This is Western Norway University of Applied Sciences

With about 16,000 students, Western Norway University of Applied Sciences is one of the largest higher education institutions in Norway. A broad range of academic programmes are offered at Bachelor, Master and PhD levels, spread out on five campuses Førde, Sogndal, Bergen, Stord og Haugesund.

Our ambition is to build stronger and more solid academic and research environments that will interact nationally and internationally. The aim is to become a recognized actor on the international higher education arena. Increased international cooperation and engagement in externally funded projects will work towards this goal.

The Faculty of Engineering and Science has approximately 300 employees and approximately 3,200 students. The faculty has a broad educational offer at both bachelor's and master's level in engineering and science, as well as PhD education in computer technology. The Mohns Center for Innovation and Regional Development researches innovation and offers master's education in innovation and entrepreneurship. The diving education offers a one-year vocational school education.

The main part of the faculty's activities are in Haugesund, Bergen, Sogndal and Førde, but we also offer decentralized education in Stord.

The faculty's activities are internationally based and take place in close collaboration with regional companies, clusters, health trusts and the public sector, including other institutions in the university and college sector. This applies to research, development, innovation and not least education with student projects at all levels.

PhD Research Fellow in Computer Science - Process Discovery and Analysis

The Department of Computer science, Electrical engineering and Mathematical sciences at Western Norway University of Applied Sciences (HVL) has 1 PhD research fellow position in Process Discovery and Analysis for a period of 3 years.

About the position:

The PhD research fellow will be part of the PhD programme in Computer Science: Software Engineering, Sensor Networks and Engineering Computing (http://ict.hvl.no) and HVL Software Engineering Group (https://ict.hvl.no/research/software-engineering/). The research programme in Computer Science currently includes around 20 professors and associate professors, 40 PhD and post-doctoral research fellows, and a large number of master's students.

The prospective PhD candidate will be associated with the Norwegian Research Council Young Research Talents project CroFlow - Enabling Highly Automated Cross-Organisational Workflow Planning (https://croflow.github.io).

About the PhD project/ work tasks:

Cross-organisational process workflows involve multiple individual ones coming from different organisations. While tasks in these individual workflows may run independently in parallel, there are very often dependencies between them. Such dependencies may lead to bottlenecks that only appear when the participants interact with tasks across multiple workflows of the processes. In this project, we are devising a new model-based methodology to develop a framework that allows reconstructing the models of the participants' experience in cross-organisational processes, based on event logs. We also aim to leverage formal analysis techniques to discover potential bottlenecks in the derived model. The result of the project will contribute to optimising cross-organisational workflow planning.

The prospective PhD student will help in reconstructing participant experience of existing workflows in the form of a formal model based on event logs, and will investigate how the research on discovering models of systems using process mining and event-recording automata can contribute to the model reconstruction. They will also contribute to developing the necessary tools to analyse the reconstructed models to pinpoint potential bottlenecks. The prospective PhD student will collaborate with the project partners of CroFlow, including Haukeland University Hospital in Bergen.

Research environment

The Computer Science research environment at Western Norway University of Applied Sciences has a strong focus on use-inspired and applied research, and on ICT as an enabling technology. The research environment has cooperation with many national and international research groups, and with national and regional industry partners. The research programme includes the research themes of software engineering, engineering computing, sensor networks and measurement technology, grid computing and physics data analysis, machine learning, and interactive and collaborative systems. The prospective PhD candidate will work in close cooperation with staff, current PhD candidates and master students in the software engineering research group (https://www.hvl.no/en/research/group/software-engineering/), which has a strong track record in model-based software development and undertakes research on applications in areas such as healthcare, cloud technology and internet-of-things, industrial automation, and robotics.

PhD research fellow receives an annual work expense funding which can be used for conference participation, research visits, and equipment. The place of employment is Campus Bergen, however, the candidate is expected to spend 3-6 months in a different academic environment during the research period.

Qualifications:

- a master's degree in Computer Science or in a closely related field, or have submitted the master's thesis before the application deadline. In the latter case, it is required that the master's degree must be awarded within 4 weeks after the applications deadline.
- a solid background in formal modelling, model checking and/or program analyses is compulsory for this position
- knowledge in process mining and event-recording automata will be considered as an advantage
- a possible outline of a research plan for a potential PhD project will also be taken into account.

In addition to the required educational background, the following criteria will be evaluated: competence and grades on completed course work, quality of the master's thesis (excellent grade, equivalent of grade B or better on the ECTS grading system), publications (if any), research and teaching experience, practical software engineering skills and experience. Applicants must be proficient in both written and oral English. Personal and relational qualities will be emphasized. Ambitions and potential will also count when evaluating the candidates.

The candidate must be diligent and display the ability to work independently, supplemented with regular guidance, and is expected to carry out high-quality research and to publish the results in international conferences and journals.

Candidates already holding a PhD within this field are not eligible for this position.

The PhD research fellow must enrol in the PhD programme in Computer Science: Software Engineering, Sensor Networks and Engineering Computing at Western Norway University of Applied Sciences, and must meet the formal admission requirements for admission into the PhD programme. The employment period may be reduced if the successful applicant has held previous employment as a research fellow.

The PhD candidate will be assigned one academic supervisor at Western Norway University of Applied Sciences and a co-supervisor. An application for enrolment should first be submitted after an appointment is made, and the supervisor(s) will help with this procedure. The candidate must be enrolled as a PhD student within three months from the start of the employment.

Application procedure:

Applications will be evaluated by an expert committee of three members.

Applicants are asked to submit their application and CV online. Please use the link “Apply for this job” (“Søk stillingen”). The following documentation should be also uploaded as an attachment to the online application:

- transcripts of bachelor’s and master’s degree
- master’s thesis
- a CV with a complete list of academic publications
- diplomas and certificates
- copies of selected academic publications (no more than 5)
- a research proposal describing aims for the PhD research (no more than 2 pages)

If the documents submitted are not in English or in a Scandinavian language, the applicants must submit certified translations of these. The transcripts must specify the topics, the course works, and the grades at the bachelor`s and master`s degree levels.

Applicants should note that the evaluation will be based on the documentation submitted electronically via Jobbnorge within the submission deadline. The applicants are responsible for ensuring that all the documentation is submitted before the closing date. It is of utmost importance that all publications to be considered in the evaluation are uploaded as an attachment with the application, since these are sent electronically to the expert committee. Applications cannot be sent by e-mail or to individuals at the university.

Salary:

- Good occupational pension, insurance and loan schemes from The Norwegian Public Service Pension Fund
- Exciting academic environment with the possibility of competence enhancement and development
- Opportunities for training within the working hours

Initial salaries will be offered at grade 54 (code 1017) in the Civil Service pay grade table scale.

There is a compulsory 2 % deduction to the pension fund (see http://www.spk.no for more information). The successful applicant must comply with the guidelines that apply to the position at any time.

General information:

The appointment will be made in accordance with the regulations for State employees Law in Norway ("Lov om statens ansatte)". Organizational changes and changes in the duties and responsibilities associated with the position must be expected.

State employment shall reflect the multiplicity of the population at large to the highest possible degree. Western Norway University of Applied Sciences Bergen has therefore adopted a personnel policy objective to ensure that we achieve a balanced age and gender composition and the recruitment of persons of various ethnic backgrounds.

Information about the applicant may be made public even though the applicant has requested not to be named in the list of applicants. The applicant will be notified if his/her request is not respected.

Short-listed applicants will be called in for an interview.

Homepage

http://www.hvl.no/
http://ict.hvl.no/
https://ict.hvl.no/research/software-engineering/

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Interaction, Sustainability, Innovation

Western Norway University of Applied Sciences shall be a university with a clear professional and working life-oriented profile.

Through education, research and development we create new knowledge and expertise, anchored internationally and with solutions that work locally.

Homepage

Video: https://www.youtube.com/watch?v=f_NjRp_Zoyo

Additional information

Place of service:

Campus Bergen 5063 Bergen (Bergen Municipality)