UiT Norges arktiske universitet
Institutt for informatikk

Jobbnorge-ID: 105746
Søknadsfrist: Avsluttet
Nettside:
Omfang:
Varighet:

Professor in Computer Science at the Department of Computer Science

Application deadline: 9.10.2014
Ref.no: 2014/3131

Pending on funding, The Department of Computer Science at University of Tromsø - The Arctic University of Norway (UiT) has a position vacant for a highly qualified full professor in computer science.

Further information about the position is available by contacting Head of Department Tore Brox-Larsen, phone +47 7764 4044, e-mail: tore@cs.uit.no.

For administrative questions, please contact the Department's administration;
phone +47 7764 4036, email: administrasjon@cs.uit.no.

The position's affiliation
UiT is the largest research university in northern Norway with about 11,000 students and 2,600 employees. UiT is a founding member of the University of the Arctic, an international network of study and research institutions of the circumpolar region. Two hundred international agreements secure an active academic exchange of students and staff with partner institutions worldwide.

The Department of Computer Science provides a strong international research environment with 12 tenured faculty members, 8 adjunct professors, 3 post doctors and researchers, 6 technical/ administrative staff members and about 20 PhD students. The goal of the Department is to advance the research and teaching of computer science as a discipline, to demonstrate leadership within our areas of interest, and to contribute to society through our education, research and dissemination. More information available at http://uit.no/informatikk.

The position's area of research
Research at the Department of Computer Science is concerned primarily with technical computer science systems research of mobile, distributed and/or parallel systems and applications. The research covers experimental development, application, analysis and testing of models, architectures, and mechanisms for mobile, embedded, distributed and/or parallel applications. Scaling, performance, handling of large feature-rich datasets, heterogeneity, energy-efficiency, autonomy, and componentization are examples of concerns that are addressed. Application areas include high-performance computing, green computing, visualization, genomics, information search and filtering, health and health-care related systems. Research platforms include clusters, grids, display walls, mobile systems, embedded systems and cloud systems. Researchers are organized in five voluntary research groups, each with one leader. A more extensive description of our research groups is available at
http://en.uit.no/ansatte/organisasjon/forskning?p_dimension_id=88138&p_menu=28713

The overriding purpose of the position is to strengthen the department's research quality in areas where the department is already active. Either by directly strengthening an established research area or by providing complementary research competence that will mutually benefit our research in more areas. Machine learning, and systems research related to computer security, are examples of research areas that might be mutually beneficial with our established research portfolio. Expansion into theory of computation or into information science is at this time not an option. Applications found by the assessment committee to fall into these areas will not be considered nor evaluated.

Applicants who offer complementary competence are encouraged to study the descriptions of our research groups, and to indicate research areas where working together with established research groups might offer mutually beneficial research opportunities. In the case of complementary competence, we expect applicants to be interested and willing to work with more groups rather than just one.

We expect applicants to offer teaching that addresses and attracts major portions of our student body, rather than working exclusively with a limited set of students at specific levels, or with a specific area of focus.

The Arctic Green Computing (AGC) research group aims at addressing energy efficiency, system complexity and dependability across mobile, embedded and data-center systems. The group current research interests include novel execution models forming foundations for a paradigm shift from energy "blind" to energy "aware" software development and, at the same time, facilitating programming productivity on energy-efficient computing systems. The group research has been funded by European Commission (FP7), Norwegian Research Council (FRIPRO) and UiT. The group is the leader of the work package on energy-efficient data structures and algorithms in EU FP7 ICT project EXCESS (2013 - 2016), the Norwegian representative in the Management Committee of the EU COST Action Euro-TM on concurrent programming abstractions (2011 - 2015) and the project leader of Norwegian FRIPRO project PREAPP on productivity and energy efficiency (2014 - 2017).

The High Performance Distributed and Parallel Systems group (hpds.cs.uit.no, bdps.cs.uit.no) does systems research on distributed and parallel systems. Topics of interest to the group includes scalable concurrency, composition of parallel programs, visualization and analytics of big data, systems support for multi-computer human-computer interfaces, and collaborative systems and cross-platform resource sharing. The HPDS group applies several methods and techniques including machine learning, interactive big data analytics, visual big data analytics, and advanced statistical and mathematical models. The group develops extensive prototypes, and does performance measuring experiments on them with the purpose of documenting their characteristics and understanding their scalability and applicability. The group has several cross-disciplinary projects nationally and internationally including on meteorology, bioinformatics, and medicine. The group has two laboratories, the Tromsø Display Wall Laboratory, and the Biological Data Processing Systems Laboratory.

The Information access (IA) group focuses on cloud based information access systems and scalable platforms for multimedia applications. Of particular interest are fundamental structures and concepts supporting scalability, fault-tolerance, self-management, and security and privacy in cloud environments. Investigations are made on the entire software stack, from operating systems, lightweight virtualization technologies, intra-cloud run-times federating heterogeneous clouds, to analytic run-times and disruptive applications. Application focus includes next generation sports technology where privacy and security aspects are essential, enterprise social networks, and personalized publish/subscribe multimedia entertainment systems.

The Medical Informatics and Telemedicine group (MI&T) studies technical computer science issues within the broader area of health informatics, including mobile phone-based social media applications and serious computer games for people with chronic diseases, self-help systems for people with chronic diseases, electronic disease surveillance, medical sensor systems, context-sensitive communication in hospitals, advanced videoconference-based telemedicine systems, patient modeling, telemedicine systems in homes and telemedicine services in remote areas. All projects are done in cooperation with, or closely connected to, Tromsø Telemedicine Laboratory and Norwegian Centre for Integrated Care and Telemedicine, University Hospital of North Norway.

The research in the Open distributed systems (ODS) group is centred around middleware that facilitates the construction of applications of various kinds, with an emphasis on interoperability and adaptability issues. The group focuses on support for next-generation distributed applications, mobility, composition-based web applications, real-time collaboration and information exchange. Specific issues include adaptability, context-awareness, personalization, semantic-based image management, applied security, services orchestration, collaborative editing, consistency and reliability. Recent activities have included secure multiparty computation of health data, mobile business infrastructures, and personalized information access.

Qualification requirements
In order to be awarded professorial competence, applicants must be able to document substantially more extensive research of high quality than that required to be awarded a doctorate degree. Pursuant to the Regulations concerning appointment and promotion to teaching and research posts, the fundamental requirement is:

- Academic level conforming to established international or national standards for position of professor in the subject area in question, and
- Documented competence in relevant educational theory and practice based on training or on teaching and supervision.

The applicants must be able to document teaching qualifications in the form of university-level teaching seminars, other teaching education or through having developed a teaching portfolio. Alternatively, after carrying out an assessment of the applicant's practical teaching skills, the committee may determine that this may be regarded as of equal value to formal teaching qualifications. For further information about requirements for teaching qualifications, refer to the website pertaining to teacher training courses.

The recipient of the position must document research, research leadership, teaching, funding efforts, and research potential at quality and rate-levels that clearly qualifies for a full professorship. The professor should have a publication record that documents solid knowledge in computer science, and strong research skills on technical aspects of experimental computer science within the scope of the Department's research groups. We are looking for candidates who demonstrate their continued potential for high quality research by documenting increased scientific maturity in their selection of issues, application of methods, and documentation of results. Research results are validated through thorough experiments and analysis.

Emphasis shall be attached to personal suitability.

Applicants should have a good command in English and in Norwegian or another Scandinavian language. If not in a Scandinavian language, the applicant must be willing to learn Norwegian within two years.

Working conditions
In general, the professor shall spend an equal amount of time on teaching and research and development work, after time spent on other duties has been deducted. As a norm, the time resources spent on administrative duties constitutes 5 % for academic staff in this category of position. The allocation of working hours shall be flexible and allocated on a case-by-case basis.

The candidate must participate in teaching computer science at all levels and formats offered by the department. This includes supervision of undergraduate and graduate projects.

The professor will work with one or more of the department's research groups and must contribute to enhance the department's research within the described areas or even related fields of research, such as machine learning or computer security. There are excellent opportunities to develop research projects in collaboration with other faculty members across the groups. The professor is expected to be successful in raising external research funds.

Moreover, applicants shall refer to the Retningslinjer for fordeling av arbeidstid for ansatte i undervisnings- og forskerstillinger (Guidelines for allocation of working hours in teaching and research positions. Only in Norwegian).

Employees in permanent positions as professor have the right to apply for a paid sabbatical (research and development), cf. Retningslinjene for fordeling av FoU-termin (Guidelines for the allocation of R&D sabbatical).

The successful applicant must be willing to participate actively in the ongoing development of the discipline, the department, and the university as a whole.

We offer
- R&D sabbatical conditions which are considered to be some of the best in the country

- A good working environment
- Good welfare arrangements for employees
- Good arrangements for pension, insurance and loans in the Norwegian Public Service Pension Fund

The remuneration for Professor is in accordance with the State salary scale code 1013.
A compulsory contribution of 2 % to the Norwegian Public Service Pension Fund will be deducted.

Assessment
An expert committee will assess the applicants. The committee's mandate is to undertake an assessment of the applicants' qualifications based on the material presented by the applicants, and the detailed description drawn up for the position.

The applicants who are assessed as the best qualified might be invited for interview. The interview shall among other things, aim to clarify the applicant's personal suitability for the position. A trial lecture may also be held.

The department reserves the right to abort the hiring process if the assessment committee or the department determines that there are no suitably and highly qualified applicants for the position.

UiT wishes to increase the proportion of females in senior research positions. In the event that two or more applicants are found to be approximately equally qualified, female applicants will be given priority.

Application
The **application** must be submitted electronically via the application form available on www.jobbnorge.no and shall include:

- Letter of application
- CV (containing a complete overview of education, supervised professional training and professional work)
- Diplomas
- Names and e-mail address of references
- Form for documentation of teaching qualifications
- List of works and description of these, containing the following information:
  - author(s), the work's title
  - for articles: the journal's name and volume, the first and last page of the article, year of publication
  - for publications: publisher, printer, year of publication, number of pages
- Academic works:The applicant may submit up to ten works that are central to his/her production. The applicant's doctoral thesis is regarded in this context as one work.

- In addition, the applicant shall provide a description of his/her production stating which works he/she considers the most important and which shall therefore be the main emphasis of the assessment. A brief description of the other listed works shall also be included to demonstrate depth of production. These descriptions shall be an attachment to the application.

All documentation that is to be evaluated must be translated into English or a Scandinavian language.

Applicants shall also refer to "*Supplementary regulations for appointment and promotion to teaching and research positions at the University of Tromsø*" and "*Regulations concerning appointment and promotion to teaching and research posts*".

Questions concerning the organisation of the working environment, such as the physical state of the place of employment, health service, possibility for flexible working hours, part time, etc. may be directed to the telephone reference in this announcement.

UiT has HR policy objectives that emphasize diversity, and therefore encourages qualified applicants to apply regardless of their age, gender, functional ability and national or ethnic background.

The university is an IW (Inclusive Workplace) enterprise, and will therefore emphasize making the necessary adaptations to the working conditions for employees with reduced functional ability.

Personal data given in an application or CV will be processed in accordance with the Act relating to the processing of personal data (the Personal Data Act). In accordance with Section 25 subsection 2 of the Freedom of Information Act, the applicant may request not to be registered on the public list of applicants. However, the University may nevertheless decide that the name of the applicant will be made public. The applicant will receive advance notification in the event of such publication.

Tilleggsinformasjon

Arbeidssted: