



PhD Candidate in Computer Science

University of Tromsø - The Arctic University of Norway (UiT) has a PhD position in Computer Science vacant for a candidate committed to take the degree of Philosophy Doctor (PhD).

The position is organized under the Department of Computer Science, and allocated to the project: *GreenHPE - Energy-efficient High Performance Environments*

The appointment is for a period of four years for a candidate with knowledge, skills and will to successfully complete the PhD study within and limited to the time frame.

The PhD position is for a fixed term, with the objective of completion of research education to the level of a doctoral degree. Admission to a PhD programme is a prerequisite for employment, and the programme period starts on commencement of the position. The PhD Candidate shall participate in the Faculty's organized research training, and the PhD study shall be completed during the period of employment. Information about the application process for admission to the PhD programme, application form and regulations for the degree of Philosophiae Doctor (PhD) are available at the Faculty's website for [Research training](#).

Further information about the position is available by contacting: associate professor Phuong Hoai Ha (phuong.hoi.ha@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 The Arctic University of Norway](#) is the largest research and educational institution in northern Norway with about 15,800 students and 3,400 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, 4 adjunct professors, 3 post doctors and researchers, 7 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 <https://uit.no/informatikk>.

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 topics include novel execution models for energy-efficient computing and analytics. The group was a work-package leader in EU FP7 ICT project EXCESS on energy-efficient high-performance computing systems (2013 - 2016), and is PI and Co-PI of several national research projects funded by the Research Council of Norway (including FRIPRO Young Research Talents, Research Infrastructure and IKTPLUSS initiative). The group is the Norwegian representative in the management committee of the EU COST Action Euro-TM on concurrent programming abstractions (2011 - 2015) and a member of EU network of excellence HiPEAC on high performance and embedded architecture and compilation.

The research project

In today's exponential world of digital data, big data services have made the power consumption the lion's share of the total cost. Energy efficiency is therefore considered a major criterion for "sustainable" computing systems and services over the data deluge. This project aims to devise efficient extreme-scale system software for real-time analysis of massive volumes of data. Fundamental challenges in extreme-scale systems such as energy efficiency, data movement, concurrency and resilience will be addressed.

Qualification requirements

The successful applicant must fulfil the requirements for admission to the Faculty's PhD programme; cf. [Regulation for the degree of Philosophiae Doctor](#) (PhD) at the University of Tromsø. The applicant should in addition be able to document proficiency in English equivalent to Norwegian Higher Education Entrance Qualification, available at the same website.

This position requires a Master's degree or equivalent in Computer Science. Candidates in the final phase of their Master study may apply if they are able to document a completed degree within 01.08.2018. At least a preliminary version of the thesis should be attached in the application.

A successful candidate should have a strong interest in at least one of the following topics: energy-efficient computing systems, high-performance computing systems, programming abstractions and run-time systems. Experience of developing efficient NoSQL databases such as in-memory key-value stores is desired. Since our research results are evaluated experimentally, good programming and system research skills are necessary.

Emphasis shall also be attached to personal suitability.

Working conditions

The normal period of appointment is four years. The PhD study is standardized to three years. The fourth year consists of teaching or other duties for the university, organized according to a distribution formula of 25 % per year in agreement with the Head of Department, cf. the directive for duties for research fellows (in Norwegian only).

A shorter period of appointment may be decided when the research fellow has already completed parts of his/her research training programme or when the appointment is based on a previous qualifying position (PhD Candidate, research assistant, or the equivalent) in such a way that the total time used for research training amounts to three years.

Remuneration for the position of PhD Candidate is in accordance with the State salary scale code 1017. At present, the gross salary starts from NOK 436.900 per year. A compulsory contribution of 2 % to the Norwegian Public Service Pension Fund will be deducted.

Assessment

The applicants will be assessed by an expert committee. During this assessment process, emphasis will be attached to the applicant's potential for research as shown by:

- Publications
- Master's thesis or equivalent
- any other academic works

In addition, consideration may be given to work experience or other activities of significance for the implementation of the PhD studies, and to teaching qualifications.

The applicants assessed as the best qualified will be called to an interview. The interview shall among other things aim to clarify the applicant's personal suitability for the position.

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)
- Copies of:
 - diploma and transcript from your Bachelor's degree or equivalent
 - diploma and transcript from your Master's degree or equivalent.
 - diploma supplement for completed degrees
 - documentation of English language proficiency
- 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
- The works (published or unpublished) which the applicant wishes to be taken into consideration during the assessment process must be submitted in the web portal.
- List of references with contact information.

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

Information and material to be considered during the assessment must be submitted by the stipulated deadline.

Applicants shall also refer to the [Supplementary regulations for appointment to postdoktor \(Postdoctoral Research Fellow\), stipendiat \(PhD\) and vitenskapelig assistent \(Research Assistant\) positions at the University of Tromsø](#) and to the [Regulations concerning terms and conditions of employment for posts of postdoktor \(Postdoctoral Research Fellow\), stipendiat \(PhD\), vitenskapelig assistent \(Research Assistant\) and spesialistkandidat \(Resident\)](#).

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.

Jobbnorge ID: 151768, Deadline: Closed