Postdoctoral Research Fellow in Intelligent Fog/Edge Computing

Job description

Position as Postdoctoral Research Fellow in Intelligent Fog/Edge Computing available at the Networks and Distributed systems (ND) group, Department of Informatics.

The position is within a project, funded by the Research Council of Norway, called DILUTE: Fluid Service Abstraction for Large-Scale Cloud IoT Systems. Further information about the project is available at: www.dilute.no

The fellowship is for a period of 2 years and devoted to carrying out research in the context of the DILUTE project. The research is conducted in collaboration with other three European partners of the project both from academia and industry, including:

- Distributed Systems Group (DSG) at Technical University of Vienna, Austria
- Networked Embedded Systems (NES) Group, Swedish Institute of Computer Science (SICS), Sweden
- ADLINK, France

Starting date is negotiable but the preferred starting date is no later than Sep. 15th, 2020.

More about the position

By 2025 there will be nearly 75 billion Internet addressable devices, Internet of Things (IoT), which translates into an annual economic impact of $3.9 trillion to $11.1 trillion by 2025 across many different settings, including factories, cities, retail environments, and the human body, according to McKinsey Global Institute. IoT and Cloud integration will enable development of large-scale IoT applications, such as smart cities, energy, health, etc. Moreover, due to requirements such as mobility support, location-awareness and low latency, the cloud has been recently extended to the edge of the network—Fog Computing.

Developing large-scale IoT applications using cloud and edge/fog computing resources is challenging because it requires intelligent and distributed software design and development solutions that match highly dynamic and heterogeneous resources at different levels of the network hierarchy from IoT devices to edge devices and the Cloud. DILUTE is aimed to address this challenge.

We are seeking a postdoctoral researcher who is interested in designing, developing, and evaluating techniques and frameworks related to the above. In particular, the selected candidate is expected to conduct research on fog/edge-level dynamic software service distribution, composition, and migration based on resource availability, network dynamicity, and future application needs. Additionally, it is expected that the researcher actively contributes to the coordination of collaboration between all partners contributing to DILUTE, including supervision of PhD-candidates.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition to be among Europe’s leading communities for research, education and innovation. 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.

- Applicants must hold a PhD degree equivalent to a Norwegian doctoral degree in in Computer Science or in a related study, with excellent results and a clear profile in one or several of the following: Distributed Computing, Internet of Things (IoT), Fog/Edge Computing, Data Intensive Computing, and Machine Learning
- Doctoral dissertation must be submitted for evaluation by the closing date. You may apply if you have not yet completed your degree, but expect to do so before the position starts
- Fluent oral and written communication skills in English

We offer

- salary NOK 523 200 - 605 500 per year depending on qualifications in position as Postdoctoral Research Fellow (position code 1352)
- Attractive welfare benefits and a generous pension agreement
- Professionally stimulating working environment
- Vibrant international academic environment
- Postdoctoral development programmes
- Oslo’s family-friendly surroundings with their rich opportunities for culture and outdoor activities

How to apply

The application must include:
Application letter (max. 2 pages). Please describe your motivation for applying for this position and explain how your background, research, and experience is relevant to the project.

CV summarizing education, positions, research experience, and other qualifying activities

Copies of educational certificates, academic transcript of records and letters of recommendation

Up to 5 academic works that the applicant wishes to have considered in the assessment process

A list of reference persons: 2-3 references (name, relation to candidate, e-mail and phone 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). In assessing applications, particular emphasis will be placed upon the academic and personal capacity of the candidate to contribute to the project within the given timeframe, to interact within national and international networks, and to be part of a dynamic research group.

Interviews with the best qualified candidates will be arranged.

**Formal regulations**

Please see the guidelines and regulations for appointments to Postdoctoral fellowships at the University of Oslo.

No one can be appointed for more than one Postdoctoral Fellow period at the University of Oslo.

According to the Norwegian Freedom of Information Act (Offentløplova) 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.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

**Contact information**

For further information please contact: Professor Frank Eliassen, phone: +47 22840148, e-mail: frank@ifi.uio.no or Dr. Amir Taherkordi, phone: +47 22840584, e-mail: amirhost@ifi.uio.no

For technical question regarding the recruitment system, please contact HR Adviser; Torunn Standal Guttormsen, t.s.guttormsen@mn.uio.no, phone:+47 22854272

**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 Department of Informatics (IFI) is one of nine departments belonging to the Faculty of Mathematics and Natural Sciences. IFI is Norway’s largest university department for general education and research in Computer Science and related topics.

The Department has more than 1800 students on bachelor level, 600 master students, and over 240 PhDs and postdocs. The overall staff of the Department is close to 370 employees, about 280 of these in full time positions. The full time tenured academic staff is 75, mostly Full/Associate Professors.

Jobbnorge-ID: 186110, Søknadsfrist: 20. mai 2020