2017-11-10

Ph.D. Student in Computer Science

to BTH, Blekinge Insitute of Technology with placement at the Department of Technology and Aesthetics, Karlshamn

Reference number: BTH 3.1.2-0411-2017

Work description:
Recent years have seen a tremendous increase of visual information being delivered to corporate and consumer markets along with interaction over a variety of human-machine interfaces as well as fixed and mobile networks. As such, we are at the beginning of a new era of immersive experiences that aims at enhancing everyday experiences, providing new ways on how people communicate with each other and in collaborate groups, and making these experiences more realistic, engaging, and satisfying.

This Ph.D. position is associated with the research project "Human-centered computing for novel visual and interactive applications" funded by the Knowledge Foundation of Sweden in co-production with industry. As Ph.D. student, you will conduct original research in the area of Quality of Experience (QoE) with particular focus on networked Virtual and Augmented Reality, and communication-related aspects thereof. You will assess QoE with help of subjective, experimental studies and objective, analytical models. You will carry out measurements, interpret and perform statistical analysis of application behaviour and network traffic with focus on the temporal domain. This way, you will investigate and formalise relationships between QoE and application/network behaviour, and propose measures for quality improvements based on these research results. For the latter, regression methods will be applied as appropriate. You will cooperate with other researchers within above research project, both from academia and from industry, and contribute to the project showcase hosted by the Blekinge Museum.

The position includes theoretical analysis (modelling and analysis), practical parts (implementation of software and measurements), documentation (scientific articles and reports) and presentation of results. Teaching may be included at a level not exceeding 20%.

Eligibility:
Applications are invited from candidates holding a Master's degree in computer science, radio communications, wireless communications, telecommunications, telecommunication systems, or other relevant disciplines.

Meriting qualifications:

- The candidate will preferably possess strong background in at least two of the following areas: experimental design, network measurements, teletraffic modeling, multimedia Quality of Experience, statistical analysis, regression methods.
- The candidate should have strong analytical (mathematical) skills.
- Ability to work both independently and in a research team
- Ability to formulate and solve scientific problems
- The candidate must be fluent in English (written and spoken).
- Practical experience is desirable, for example, conducting the Masters thesis in industry

Employment:
100 %

Commencement:
2018-01-01

Duration:
Temporary employment. The duration of the position will be a maximum of 5 years comprising of 80% research and 20% departmental duties.

Contacts:
Markus Fiedler (Sub-Project Leader), phone +46 455-38 56 53
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Application:
Please submit your application, marked with the reference number for the position, by November 30, 2017 at the latest by email to diarium@bth.se. The application shall include a cover letter describing your interest in the employment and the research area, your resume, and copies of diplomas and other documents that verify your qualifications.

Others:
We have chosen media for this recruitment and therefore avoid contact with advertisers or other recruitment services.

Department of Technology and Aesthetics

The research at the Department of Technology and Aesthetics (DITE) implements a cross- and trans-disciplinary perspective based on computer science and technoscience, spinning around digital technology and audio-visual expressions. We focus on design of experiences and associated processes, analysis of experiences and quality of experience, development of methods of participation, and application of new digital technologies in collaborative processes. This ranges from conceptual and idea development through prototype design for testing and evaluation in close collaboration with participant partners. We are particularly interested in creating digital experiences for physical environments. Our vision is to be a participating signpost for future, yet unproven opportunities to address societal challenges where media technology can make a difference.

BTH, Blekinge Institute of Technology

Blekinge Institute of Technology, BTH, is one of the most distinctly profiled universities in Sweden, where applied IT and innovation for sustainable growth are in focus. In our education and research, engineering and IT are integrated with other disciplines such as urban planning, industrial economics, design and health sciences to contribute to solving the challenges facing society. Everything we do at BTH has three distinct perspectives: innovation, sustainability and in real life, which means cooperation and exchange with both business and industry as well as society. A characteristic of BTH is the close cooperation with industry and society, which permeates both education and research at the regional, national and international level. We conduct education and research at a high international level. BTH has two faculties – the Faculty of Computing and the Faculty of Engineering.