PhD student in Computational Epidemics

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Uppsala University is a comprehensive research-intensive university with a strong international standing. Our ultimate goal is to conduct education and research of the highest quality and relevance to make a long-term difference in society. Our most important assets are all the individuals whose curiosity and dedication make Uppsala University one of Sweden’s most exciting workplaces. Uppsala University has over 54,000 students, more than 7,500 employees and a turnover of around SEK 8 billion.

The Department of Information Technology has a leading position in research and education. The Department currently has about 300 employees, including 120 teachers and 110 PhD students. More than 4000 students study one or more courses at the department each year. You can find more information about us at the web page of the department of Information Technology.

This PhD position is part of the eSSENCE-SciLifeLab graduate school in data-intensive science. The school addresses the challenge of data-intensive science both from the foundational methodological perspective and from the perspective of data-driven science applications. It is an arena where experts in computational science, data science and data engineering (systems and methodology) work closely together with researchers in (data-driven) sciences, industry and society to accelerate data-intensive scientific discovery.

Read more about the project via this link.

Read more about our benefits and what it is like to work at Uppsala University.
The position is hosted by the Division of Scientific Computing within the Department of Information Technology. As one of the world’s largest focused research environments in Scientific Computing the research and education has a unique breadth, with large activities in classical scientific computing areas such as mathematical modeling, development and analysis of algorithms, scientific software development and high-performance computing. The division is currently in an expansive phase in new emerging areas such as cloud and fog computing, data science, and artificial intelligence, where it plays key roles in several new strategic initiatives at the University.

Alternatively, and depending on the qualifications of the candidate, the position will be hosted by the Division of Systems and Control, where we develop methodology for and applications of automatic control, system identification, and machine learning. Developing mathematical models that capture real-world dynamical phenomena evolving in and interacting with their environment is central to all these areas of information technology. Optimization methods are of central importance since they constitute the computational core of control, system identification, and machine learning. Model uncertainty quantification is an important aspect since it allows for design of algorithms with performance guarantees.

Duties

A PhD student is expected to mainly devote his/her time to graduate education. The rest of the duties involve teaching at the Department, including also some administration, to at most 20%.

Requirements

A PhD position at the Division requires:

- Master of Science, or equivalent, in a field that is relevant to the topic of the project.
- Good communication skills with sufficient proficiency in oral and written English, as well as very good study results.
- Personal characteristics, such as a high level of creativity, thoroughness, and/or a structured approach to problem solving are essential.
**Additional qualifications**
Specific requirements for the project include proficiency in programming (preferably in Matlab, Python or R), as well as knowledge in or more of computational science, systems identification, or machine learning. Experience and courses in applied mathematics, statistics, and dynamical systems are also valued.

Rules governing PhD students are set out in the Higher Education Ordinance chapter 5, §§ 1-7 and in Uppsala University's rules and guidelines.

**About the employment**
The employment is a temporary position according to the Higher Education Ordinance chapter 5 § 7. Scope of employment 100 %. Starting date as agreed.
Placement: Uppsala

**For further information about the position, please contact:** Stefan Engblom, +46 18 471 2754, stefane@it.uu.se

**Please submit your application by 16 December 2022, UFV-PA 2022/3850.**

Are you considering moving to Sweden to work at Uppsala University? [Find out more about what it’s like to work and live in Sweden](#).

Please do not send offers of recruitment or advertising services.

Submit your application through Uppsala University's recruitment system.

**Placement:** Department of Information Technology  
**Type of employment:** Full time, Temporary position longer than 6 months  
**Pay:** Fixed salary  
**Number of positions:** 1  
**Working hours:** 100 %  
**Town:** Uppsala  
**County:** Uppsala län  
**Country:** Sweden
Union representative: ST/TCO tco@fackorg.uu.se
Seko Universitetsklubben seko@uadm.uu.se
Saco-rådet saco@uadm.uu.se

Number of reference: UFV-PA 2022/3850
Last application date: 2022-12-16

Apply for position