PhD student in data-driven drug discovery with a focus on streaming microscopy data

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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.

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Department of Pharmaceutical Biosciences • Part of something big.

The Department of Pharmaceutical Biosciences is an interdisciplinary environment where 10 research areas work to contribute to better medicines and a healthier world. With laboratories in the heart of Uppsala Biomedical Center and Sweden's only Faculty of Pharmacy, we are a vital engine in the development of education and research in the pharmaceutical sciences. More information about the department and its activities is available at www.farmbio.uu.se.

Read more about our benefits and what it is like to work at Uppsala University

Background
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.

eSSENCE is a strategic collaborative research programme in e-science between three Swedish universities with a strong tradition of excellent e-science research: Uppsala University, Lund University and Umeå University.

SciLifeLab is a leading institution and national research infrastructure with a mandate to enable cutting-edge life sciences research in Sweden, foster international collaborations, and attract and retain knowledge and talent.

Tasks

We are looking for a Doctoral student with a solid background in data analysis and AI to join the research group in Pharmaceutical Bioinformatics (https://farmbio.uu.se/research/pharmaceutical-bioinformatics/). The applicant will be part of an interdisciplinary research group and participate in a research project to build an intelligent, automated laboratory for cell profiling with applications in drug development and precision medicine. The focus of this doctoral project is to develop methods and systems for managing streaming image data from multiple automated microscopes and create intelligent systems for online prioritization. Important methods in the analysis are AI / ML, and especially focus on analysis of live-cell imaging data. More information about the overall project is available at https://pharmb.io/project/autonomous-phenomics . The employment is for 4 years and the doctoral student will participate in the eSSENCE-SciLifeLab graduate school with courses in eScience and data-intensive calculations.

Requirements

University degree in mathematics, computer science, bioinformatics, engineering or equivalent field of at least 240 higher education credits, of which at least 60 higher education credits at advanced level. Documented experience in data analysis, one or more programming languages including Python, image analysis and working with Linux systems is a requirement. Furthermore, experience of AI / ML modeling with methods such as deep neural networks trained on image data is a requirement. Experience from working with streaming data is meriting.

The applicant must have a very good ability to work together but also be able to work and sustainably run projects independently. Furthermore, the applicant should be curious, creative, proactive, and relationship-building. The applicant must have excellent organizational skills, be able to work in a structured way with many contemporary projects, and solve expected and unexpected complex problems. Excellent oral and written English is a requirement.

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: professor Ola Spjuth., e-mail ola.spjuth@farmbio.uu.se

Please submit your application by 28 april 2022, UFV-PA 2022/969.

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Please do not send offers of recruitment or advertising services.

Submit your application through Uppsala University's recruitment system.

Placement: Bioinformatik
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 2022/969

Last application date: 2022-04-28

Apply for position