UNIVERSITETET I OSLO

Jobbnorge ID: 238334
Deadline: 2/15/2023
Website: http://www.uio.no/
Scope: Fulltime
Duration: Engagement

Postdoctoral Research Fellow in Bioinformatics

About the position

Position as a Postdoctoral Research Fellow in Bioinformatics is available at the Centre for Bioinformatics, University of Oslo.

The appointment is a fulltime position and is for a period of two (2) years. Starting date as soon as possible.

No one can be appointed for more than one Postdoctoral Research Fellowship at the University of Oslo.

EOSC4Cancer research and innovation action aims to connect a set of interoperable nodes, e.g. European Cancer Centres, Research Infrastructures, and Medical Centres, that provide access to FAIRified cancer-related data within (a) trusted users environment(s). The selection of data and their connectivity will be driven by key use cases that demonstrate the value at all stages along the cancer patient journey and served in the visualization and analysis environments they are familiar with.

This project aims to make cancer genomics, imaging, medical, clinical, environmental and socio-economic data accessible, using and enhancing existing federated and interoperable systems for securely identifying, sharing, processing and reusing FAIR cancer data across borders, and it will offer them via community-driven analysis environments. EOSC4Cancer provision of well-curated datasets will be essential for advanced analytics and computational methods to be reproducible and robust, including machine learning and artificial intelligence approaches. EOSC4Cancer use cases will cover the patient journey from cancer prevention through to diagnosis and treatment, laying the foundation of data trajectories and workflows for future cancer mission projects.

The postdoctoral researcher will work at the Centre for Bioinformatics, University of Oslo, under the supervision of Prof. Eivind Hovig, University of Oslo (co-lead of WP3). Strong collaboration with other teams within the project is expected, in particular with the team of Macha Nikolski, Université de Bordeaux, (WP3 co-lead).

The postdoctoral researcher will specifically contribute to the advancement of cancer data analysis portals - the goal of the WP3 in the project. The work will be based on existing computational methods served in the form of software containers interoperable in Virtual Research Environments (VRE) and workflow managers (i.e., Galaxy: https://usegalaxy.eu). The use of community-adopted platforms, cBioPortal (https://www.cbioportal.org) and the Clinical Decision Support Systems (e.g. MTBP, https://mtbp.org/ExamplePublic.php or PCGR https://github.com/sigven/pcgr), will make the operations of the underlying software layer transparent to the users.

Centre for Bioinformatics constitutes the hub of bioinformatics and computational biology at the University of Oslo, (https://www.mn.uio.no/sbi/english/).

Our competence spans from precision medicine through all aspects of genomics, regardless of species and populations, through to protein structure. The centre consists of five research groups addressing various topics using state-of-the-art algorithmic approaches, including machine learning, modelling and sequence-oriented analysis. The centre also comprises the Oslo node of ELIXIR Norway, which is the national bioinformatics infrastructure platform.

The centre is led by Professor Eivind Hovig. He has pioneered network approaches to study genetic information in cancer by text mining, and his current research includes precision oncology, synergistic drug prediction, and heritable cancer genetics.

More about the postion

The project requires competence mainly in Bioinformatics, particularly knowledge and experience with data analysis toolkits for the analysis of molecular cancer datasets.

Prior experience with federated data analysis strategies and/or data stewardship can be a strong advantage.

The main purpose of a postdoctoral fellowship is to provide the candidates with enhanced skills to pursue a scientific top position within or beyond academia. To promote a strategic career path, all postdoctoral research fellows are required to submit a professional development plan no later than one month after commencement of the postdoctoral period.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition is 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.

Required qualifications:

- Applicants must hold a PhD degree in Bioinformatics, computational life sciences, Computer Science, informatics, data science, Biostatistics or other similar disciplines with documented experience in bioinformatics and handling of large molecular datasets. A doctoral dissertation must have been submitted for evaluation by the application deadline. Only applicants with an approved doctoral thesis and public defence are eligible for appointment.
- Hands-on experience in processing and analyzing Next Generation Sequencing data (DNA-Seq & RNA-Seq) for health-related applications
- Understanding of main cancer data analysis (e.g. variant calling and annotation, biomarker identification)
- Documented programming skills in Python, R, MatLab, C, C++ or equivalent are necessary
- Docker and/or Singularity experience
- Fluent oral and written communication skills in English, which is the working language in the project

Desirable qualifications:

- Prior experience with federated data analysis strategies and/or data stewardship can be a strong advantage.
- Prior experience in software development.
- Knowledge of pipeline managers/workflow systems (e.g. Galaxy, Snakemake)
- Experience in machine learning would be a plus

We offer
- Salary NOK 544 400- 626 300 per year depending on qualifications in position as Postdoctoral Research Fellowship (position code 1352)
- Access to unique data and competence
- A friendly, professional and stimulating international working environment
- Access to a network of top-level national and international collaborators
- Attractive welfare benefits and a generous pension agreement
- Postdoctoral development programmes
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities

How to apply
The application must include:

- A personal cover letter, stating motivations for this position and research interests. Please explain clearly how your prior experience suits the tasks described in the job announcement
- A CV with a full education, positions, academic experiences, details on PhD thesis, detailed computational skills, programming skills, and a list of publications
- A sample code or other software (or a link to GitHub) that you think will help us to know more about your programming skills.
- Copies of educational certificates (academic transcripts only)
- 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 the applications, special emphasis will be placed on the documented, academic qualifications, the project description (whenever this is required in the call for applicants), and the quality of the project as well as the candidate's motivation and personal suitability.

Interviews with the best-qualified candidates will be arranged. It is expected that the successful candidate will be able to complete the project in the course of the period of employment.

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.

If an applicant has applied for and been granted funding for full-time research stay abroad while being employed as a Postdoctoral Research Fellow, the employment will be prolonged with the equivalent time as the research stay, but for no longer than of twelve months (thus extending the employment to a maximum of four years).

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

Inclusion and diversity are a strength. The University of Oslo has a personnel policy objective of achieving a balanced gender composition. Furthermore, we want employees with diverse professional expertise, life experience and perspectives.

If there are qualified applicants with disabilities, employment gaps or immigrant backgrounds, we will invite at least one applicant from each of these categories to an interview.

Contact information
For further information please contact:

Professor Eivind Hovig, e-mail: ehovig@ifi.uio.no; tlf. +47 93069881 or Professor Arnoldo Frigessi, e-mail: frigessi@medisin.uio.no; tlf. +47 95735574.

For technical questions regarding the recruitment system, please contact HR Adviser Therese Ringvold, e-mail: therese.ringvold@mn.uio.no

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.

Additional information

Place of service:
Gaustadalléen 23 B 0315 Oslo (Oslo Municipality)