PhD Research Fellowship in Biologically inspired artificial intelligence

Job description

Position as a PhD Research fellow in Biologically inspired neural networks for artificial intelligence is available at the Department of Biosciences in the research group of Professors Anders Malthe-Sørenssen and Marianne Fyhn at the Center for Integrative Neuroplasticity (CINPLA). Starting date is 01.08.2020.

The fellowship will be for a period of 3 years, with no compulsory work or for a period of 4 years, with 25% compulsory work (teaching responsibilities at the department) contingent on the qualifications of the candidate and the teaching needs of the department. No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo.

The candidate for this position will work on a project funded by the Norwegian Research Council entitled “Bio-inspired neural networks for AI applications”. The project is a collaboration between computational physics, computational neuroscience and experimental neuroscience aiming to use insights from biological neural networks to improve methods and algorithms for artificial neural networks. The PhD project will focus on developing bio-inspired artificial neural networks, in particular reinforcement learning, study and analyze the emergent properties of these systems when trained on e.g. navigational tasks, and apply methods and representations from neuroscience to understand their behavior.

The project will open for research visits to collaborating groups at Harvard University, University of Pennsylvania and University of California San Diego.

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.

- Applicants must hold a master’s degree in physics, mathematics/statistics, computational neuroscience or artificial intelligence. The candidate must have demonstrated strong skills in developing codes for scientific computing.
- Foreign completed degree (M.Sc.-level) corresponding to a minimum of four years in the Norwegian educational system

Grade requirements:
The norm is as follows:

- the average grade point for courses included in the Bachelor’s degree must be C or better in the Norwegian educational system
- the average grade point for courses included in the Master’s degree must be B or better in the Norwegian educational system
- the Master’s thesis must have the grade B or better in the Norwegian educational system

Experience with statistical modelling approaches or modelling of artificial neural networks is considered advantageous. Relevant candidates should have an interest for multidisciplinary research.

A good command- written and oral- of English is required. The knowledge of Norwegian or other Scandinavian language is an advantage.

English requirements for applicants from outside of EU/ EEA countries and exemptions from the requirements:

http://www.mn.uio.no/english/research/phd/application/application.html

We are seeking a highly motivated, enthusiastic and hard-working candidate with the ambition to gain new insights and publish papers in leading, international journals. Applicants must show good interpersonal skills and be willing to work in close collaboration with the project PIs and other members of the project team, as well as have the ability to work independently.

The purpose of the fellowship is research training leading to the successful completion of a PhD degree.

The fellowship requires admission to the PhD program at the Faculty of Mathematics and Natural Sciences. The application to the PhD program must be submitted to the department no later than two months after taking up the position. For more information see:

http://www.uio.no/english/research/phd/

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It is expected that the successful candidate will be able to complete the project in the course of the period of employment.

We offer
Salary NOK 479 600 - 523 200 per annum depending on qualifications in a position as PhD Research fellow, (position code 1017)
Attractive welfare benefits and a generous pension agreement
Vibrant international academic environment
Career 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 including a motivation for applying for the position (max. 1 page)
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of educational certificates, transcript of records and letters of recommendation
- List of publications and academic work that the applicant wishes to be considered by the evaluation committee
- Names and contact details of 1-2 references (name, relation to candidate, e-mail and telephone 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). Applications with documents missing will not be considered further. Original documentation may be requested.

In assessing the applications, special emphasis will be placed on the documented, academic qualifications required for this project, as well as the candidates’ motivation and personal suitability. Interviews with the best qualified candidates will be arranged.

Formal regulations

Please see the guidelines and regulations for appointments to Research Fellowships at the University of Oslo.

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

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.

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 Anders Malthe-Sørenssen, e-mail: malthe@fys.uio.no or Professor Marianne Fyhn, email: marianne.fyhn@ibv.uio.no.

For questions regarding the recruitment system, please contact: HR-officer Nina Holtan, e-mail: nina.holtan@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.

Department of Biosciences (IBV) is one of nine departments at the Faculty of Mathematics and Natural Sciences. Research in the department is organised in five sections covering topics within biochemistry, molecular biology, physiology, cell biology, genetics, aquatic biology, toxicology, ecology, and evolutionary biology. Education across these topics is offered for around 380 bachelor, 170 master, and 75 PhD students. With 52 permanent professors/associate professors, post-docs, researchers, technical, and administrative personnel, the Department has a total staff of 340 from more than 30 different countries. The Department aims to maintain high international standards within both research and teaching. The new bachelor program in bioscience is the first of its kind to include programming and computational modelling as core elements.

Jobbnorge-ID: 186083, Søknadsfrist: 8. mai 2020