Universitetet i Bergen
Institutt for biomedisin

Researcher (temporary position)

Researcher in Medical Imaging and Machine Learning (temporary position)

At the Faculty of Medicine, Department of Biomedicine, a full-time temporary position as researcher is available from 1 August 2019 - 31 July 2020. The position is part of the project "Computational medical imaging and machine learning - methods, infrastructure and applications", at the newly established Mohn Medical Imaging and Visualization Center (MMIV), Department of Radiology, Haukeland University Hospital (https://mmiv.no), and is financed by the Bergen Research Foundation.

About the project/work tasks:

The goal of our research group is to develop, implement, disseminate and evaluate machine learning techniques in the analysis of medical images and image-related data.

To successfully incorporate machine learning in medicine, doctors and medical specialists have to take a leading role. Our project, initiated from the Department of Biomedicine at the University of Bergen and the Department of Computing, Mathematics and Physics at Western Norway University of Applied Sciences, is therefore tightly connected with departments at the hospital where data is collected and decisions are made. Our research is done in close collaboration with world-class clinical researchers, ensuring the research results' relevance and increasing its potential impact. The project involves many researchers in Bergen, both clinical and methodological, in addition to national and international collaborators from world-class research institutions.

The overall aim is to contribute to increased degree of personalized medicine and better decision support for diagnosis, prognosis and therapy in diseases and conditions where images are an important source of information.

The researcher will also be part of the vibrant, interdisciplinary research community at the MMIV, with access to office space, world-class computing infrastructure and to top expertise in life sciences and computation.

The researcher will work on applications of deep learning in medical imaging.

- MMIV has access to state-of-the-art imaging infrastructure, e.g. the most recent models from Siemens and General Electric (GE 3TMR 750 Discovery, Siemens Prisma 3T, Siemens Skyra 3T, Siemens Biograph mMR PET/MR, Siemens Vision PET/CT)
- The researcher will play an active role in introducing next-generation technology (e.g. deep learning) for medical image processing and analysis, and develop new domain-oriented machine learning techniques and methods.
- The goal of the researcher's project is to investigate the effectiveness of transfer learning in medical deep learning. I.e. the effect and value of pre-training neural networks on tasks with and abundance of data when faced with tasks with limited training data. In addition to using already established techniques implemented in available frameworks, the successful candidate will create new methods for effective transfer learning in three-dimensional medical images.
- Applications that can be investigated include brain (e.g. brain morphology, tumor), gynecologic cancer and prostate (cancer)
- The researcher will also be encouraged to take part in the supervision of MSc and PhD candidates

Qualifications and personal qualities:

We seek highly motivated individuals with experience applying machine learning to medical images.

- The candidate must hold a Norwegian MSc degree within the field of medical imaging, biomedical sciences, computer science or natural sciences, on topics related to statistics, machine learning, computational medicine, bioinformatics or equivalent
- The candidate must have experience from applying machine learning to medical MR imaging
- In your application you have to point out why you are especially motivated and qualified for this particular position. We are looking for candidates who have experience in both machine learning and medical image analysis.
- Very good programming skills is a requirement. You are encouraged to include a link to your GitHub profile or similar documentation of programming competence in your application
- The candidate should be proficient in spoken and written English
- considerable emphasis will be placed on personal skills. The candidate must document ability to work independently and scientific creativity, high capacity for work, collaborative team work, strong motivation and commitment for science

We can offer:

- a competitive and stimulating work environment in the field of computational medical imaging and machine learning, and access to highly interesting data sets and important research questions
- salary from level 49-61 following ordinary meriting regulations (code 1108/ pay framework 25.3) at present NOK 442 300-542 400 gross p.a. on the government salary scale. Further promotion following ordinary meriting regulations
- enrolment in the Norwegian Public Service Pension Fund
- good welfare benefits

Your application must include:

- CV
- copies of diplomas and relevant certificates (applicants with education from other countries than Norway must enclose diplomas in both the original language and authorized translations)
- eventual publications and academic work (max 10) you want to be considered and a list of these
- two referees (name and contact information)

General information:

For further information, please contact Professor Arvid Lundervold, e-mail: Arvid.Lundervold@uib.no or phone: +47 915 61 824.

State employment shall reflect the diversity of Norwegian society to the greatest extent possible. People with immigrant backgrounds and people with disabilities are encouraged to apply for the position.

The University of Bergen applies the principles of public access to information when recruiting staff for scientific positions. Information about the applicant may be made public even if the applicant has asked not to be named in the list of applicants. The applicant must be notified if the request is not respected.

Further information about our employment process can be found here.

Ingress

The University of Bergen is a renowned educational and research institution, organised into seven faculties and approximately 54 institutes and academic centres. Campus is located in the centre of Bergen with university areas at Nygårdshøyden, Haukeland, Marineholmen, Møllendalsveien and Årstad.

There

are five departments and seven centres at Faculty of Medicine. [Read More about the facult](#)y and [departments](#).

Jobbnorge-ID: 173497, Søknadsfrist: Søknadsfristen er gått ut