Norsk Regnesentral STI
BAMJO

Jobbnorge ID: 302749
Deadline: 6/15/2026
Website: https://nr.no/
Scope: Fulltime
Duration: Engagement

PhD Research Fellow in Image Analysis and Artificial Intelligence

About the position

A fully funded position as PhD Research Fellow in Image Analysis and Artificial Intelligence is available at the Norwegian Computing Center (Norsk Regnesentral STI, NR) located in Oslo, Norway. The fellowship period is 3 years. The candidate will follow the PhD Programme at the Department of Informatics, University of Oslo.

Job description

The PhD position will be coordinated with the project portfolio on image analysis, machine learning and artificial intelligence at the Norwegian Computing Center. A central part of the research will be linked to collaborative work with The National Unit for Combating Organized and Other Serious Crime (Kripos), a national police agency under the Ministry of Justice and Police.

Modern investigations involve large amounts of digital data from both open sources and seized devices. A key challenge is determining the origin of images and video files taken indoors. Without an effective method to identify geographic origin at a high-level (nation/region), investigators risk wasting time on irrelevant material or overlooking important information. Images and video taken outdoors often contain features that enable location identification. In indoor environments, however, there may be few clear signs. The challenge is therefore to develop and evaluate a methodology that, using AI, can classify images and videos taken indoors based on their likely geographic origin.

Object detection might tell us something about the country or region in which the image was taken, based on objects such as mouldings, furniture, power outlets, commercial products, vent styles, door hinge topologies, radiator designs, local masonry patterns, etc. Hits on a specific country could strengthen or weaken hypotheses that the police are already working on and provide new information that can contribute to further investigations.

The PhD candidate will carry out research advancing AI methodology for geolocation inference based on weak indoor evidence markers from available image and video material. The project will use both openly available datasets like INDOOR-3.6M, and data allocated for this project.

The methodology will involve a combination of deep learning architectures like vision transformers and large language models. Other topics of interest include estimates of uncertainty that align well with explainability.

The PhD candidate will be employed at the Norwegian Computing Center and will simultaneously be affiliated to the PhD programme of the Department of Informatics (Faculty of Mathematics and Natural Sciences), University of Oslo, where the final PhD degree will be awarded. The candidate must fulfil the requirements for admission to the PhD programme (see below).

The PhD position is affiliated with and employed at the research department "Image Analysis, Machine Learning and Earth Observation" (BAMJO) at the Norwegian Computing Center, and work will predominantly be carried out in our offices.

The PhD position is funded by the Research Council of Norway through a STIPINST grant and will be organized with The Norwegian Centre for Trustworthy AI (TRUST).

TRUST is a Norwegian research centre that seeks to analyse and develop building the foundations of trustworthy AI. Its mission is to enable AI systems that are accurate, interpretable, inclusive, fair, safe, sustainable, and well-governed. By uniting expertise from (i) machine learning, statistics, mathematics and data science, (ii) law, and social sciences, and (iii) philosophy, the centre establishes a new framework and approach for advancing trustworthy AI with the objective of and seeks to produce ground-breaking results that have been tested on real-world problems.

Qualification requirements

- Applicants must hold a Master's degree or equivalent in machine learning or equivalent fields. A master in computer science / statistics / applied mathematics /electrical engineering can also be considered given that the candidate has formal competence in machine learning and/or image analysis / computer vision.
- Previous experience with machine learning-based approaches to image analysis (and in particular deep neural networks) is required.
- Candidates without a master's degree have until June 30, 2026 to complete the final exam.
- Foreign completed degrees (master-level) must have completed a university education corresponding to a minimum of four years in the Norwegian educational system.

- A solid background in machine learning, mathematics, linear algebra, and/or statistics is also required.
- Solid knowledge and experience in Python programming.
- Experience with frameworks like TensorFlow or PyTorch is essential.

- Fluent oral and written communication skills in English.
- If you are not speaking Norwegian or another Scandinavian language, you need to be motivated to learn Norwegian early in the project period, as the working language and communication with our partners will in general be in Norwegian.

Personal skills we are looking for

- Good communication and collaboration skills.
- Positive attitude and the ability to handle hectic periods.
- Good analytical skills.
- Dedication to work with important applications.
- Ability to conduct research in a collaborative environment.
- Ability to work independently as well as in multidisciplinary teams.
- Ability to give and receive constructive scientific criticism.
- You are a person who prefers being present at work and actively contributes to the professional and social environment you are a part of.
- You are motivated to become part of NR's professional and social environment.

Employment in the position is based on a comprehensive assessment of all qualification requirements applicable to the position, including personal skills.

We offer

- A pleasant and stimulating work environment.
- A 3-year, fully funded PhD research fellow position with a competitive salary, along with attractive welfare benefits and a generous pension agreement. The position does not include compulsory duties beyond research work connected to the PhD.
- Flexible working hours, 5 weeks of holiday in addition to paid leave during Christmas and Easter, and our own staff canteen.
- Good training and development opportunities in an inspiring work environment together with colleagues in image analysis, machine learning and artificial intelligence.
- A workplace with good development and career opportunities.
- Oslo's family-friendly environment with its rich opportunities for cultural and outdoor activities.
- Flexible starting date. We look forward to hearing from you!

How to apply

The application must include:

- Cover letter. Statement of motivation and research interests.
- 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 works that the applicant wishes to be considered by the evaluation committee.
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number).

Please submit your application with attachments electronically via jobbnorge.no. Applications submitted elsewhere will not be considered. 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 the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability.

General information

Candidates for the PhD Research Fellowship are expected to be in the upper segment of their class with respect to academic credentials. 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.

The purpose of the fellowship is research training leading to the successful completion of a PhD degree. For more information see: http://www.mn.uio.no/english/research/phd/

All candidates and projects will have to undergo a check versus national export, sanctions and security regulations. Candidates may be excluded based on these checks. Primary checkpoints are the Export Control regulation, the Sanctions regulation, and the national security regulation.

About us

Norsk Regnesentral STI (NR, The Norwegian Computing Center) is an independent, non-profit research foundation located in Oslo and is one of Norway's leading research institutions within Statistical Modelling, Machine Learning and Computer Science.

Established in 1952, NR carries out R&D projects for a broad range of commercial and public organisations in Norway and internationally.

Additional information

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Place of service:

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