

## Postdoctoral Researcher

Ecole/Institution/Société:

**ÖREBRO UNIVERSITY, Sweden / ÖREBRO**

Discipline:

**Machine Learning**

Type d'emploi::

**Full-time**

Date de publication:

**2022-04-27**

Personne à contacter:

**If you wish to apply for this position, please specify that you saw it on AKATECH.tech**

### **Researcher in Machine Learning for Perception**

We are looking for a researcher in Computer Science for a fixed-term position at the School of Natural Science and Technology.

#### **Subject area**

The subject area for this position is Computer Science, in particular the use of machine learning for visual perception algorithms in the context of an industrial project.

#### **Background**

The Center for Applied Autonomous Sensors Systems (AASS) is looking to hire a researcher with competence and interest in the field of machine learning for perception. The researcher is to be associated with the KKS-funded Synergy project TeamRob: Teams of Robots Working for and with Humans.

TeamRob addresses the core research question of how to realize teams of intelligent robots that are capable of working for and with humans. Working for humans means making it possible to train autonomous robots as easily as humans, eliminating the need for task-specific programming effort.

When successfully deployed, robots should be able to train new robots, as we would expect human workers to be able to do. Working with humans means enabling robots and humans to cooperate in the same or overlapping workspaces, on the same or similar tasks. This requires not only comparable competence to humans in carrying out tasks, but also the ability to fluidly cooperate with each other and with humans, to understand the intentions of human co-workers and, vice-versa, making robot intentions and behaviors legible to humans.

The researcher will be responsible for devising perception models that allow for seamless transfer of skills between a human teacher and a robot, or between individual robots. A key design goal is to devise learning algorithms for extracting robust perceptual feature encoding spaces, allowing for generalizable action policies.

#### **Duties and responsibilities**

- The position is expected to involve solely scientific research work. Research tasks will be dictated by the needs of the KKS Synergy project TeamRob and in line with the research

topics described in the background section above.

## **Qualifications**

- Those qualified for the appointment as a researcher are applicants who have obtained a doctoral degree or have a degree from abroad deemed to correspond to a doctoral degree in Computer Science or a related discipline.

## **Assessment criteria**

- Proven ability to produce scientific publications at the highest international level and within the topics of perception, autonomous systems, and machine learning is a must.
- Familiarity with point cloud neural architectures is a second requirement for this position, as is familiarity with the associated coding frameworks and tools. Prior experience with object detection, object recognition, and object pose estimation tasks is a plus, as is familiarity with the robot operating system (ROS) framework.
- A general basis for assessment is that the applicant is able to demonstrate the personal qualities required to successfully perform the duties and responsibilities at hand; that they are able to cooperate with other members of staff; and contribute to the development of university operations.

## **Information**

This is a fixed-term full-time position for 3 months. At Örebro University, salary depends on the successful candidate's qualifications and experience, and positions announced are, where appropriate, subject to a trial period (only for permanent positions).

For more information about the position, contact Todor Stoyanov +46 19 30 33 58, email: [todor.stoyanov@oru.se](mailto:todor.stoyanov@oru.se), Federico Pecora, +46 19 30 33 19, email: [federico.pecora@oru.se](mailto:federico.pecora@oru.se), or head of division Lars Karlsson +46 19 30 33 55, email: [lars.karlsson@oru.se](mailto:lars.karlsson@oru.se) .

At Örebro University, we expect each member of staff to be open to development and change; take responsibility for their work and performance; demonstrate a keen interest in collaboration and contribute to development; as well as to show respect for others by adopting a constructive and professional approach.

Örebro University actively pursues equal opportunities and gender equality as well as a work environment characterized by openness, trust and respect. We value the qualities that diversity adds to our operations.

## **Application**

The application is made online. Click the button "Apply" to begin the application procedure.

**For the application to be complete, the following electronic documents must be included:**

- Covering letter, outlining how you believe you can contribute to the continued development of Örebro University
- CV with a relevant description of your overall qualifications and experience
- A research statement outlining scientific qualifications and experience
- Copies of relevant course/degree certificates verifying eligibility and criteria met
- Only documents written in Swedish, English, Norwegian and Danish can be reviewed.

More information for applicants will be found at our career site: <https://www.oru.se/english/working-at-orebro-university/jobs-and-vacancies/applicants-and-external-experts/>

As directed by the National Archives of Sweden (Riksarkivet), we are required to deposit one file copy of the application documents, excluding publications, for a period of two years after the appointment decision has gained legal force.

## **Job details**

**Title:** Researcher in Machine Learning for Perception

**Employer:** Örebro University

**Location:** Fakultetsgatan 1 Örebro, Sweden

**Job type:** Researcher

**Field:** Algorithms, Human-computer Interaction, Machine Learning

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