Scientific programmer for Center for Landscape Research in Sustainable Agricultural Futures, Land-CRAFT, Department of Agroecology, Aarhus University

Department of Agroecology at Aarhus University, Denmark, is looking for a full-time (37 hr/week) scientific programmer to work at the Center for Landscape Research in Sustainable Agricultural Futures (Land-CRAFT).

Land-CRAFT addresses three of our major societal challenges - food security, climate change, and loss of biodiversity. With Center partners from University of Copenhagen, Karlsruhe Institute of Technology (Germany), and Colorado State University (USA), we bring together expertise in climate impact research, landscape analyses, biogeochemistry, agronomy, biology, and geography to develop solution – oriented research that extends across multiple spatial and temporal scales. Established in June 2022, Land-CRAFT has built a motivated team to undertake both fundamental and applied research aimed to reduce the environmental impact of agricultural systems, specifically regarding greenhouse gas emissions. To reach our goals, we are using a combination of empirical, field-based approaches, digital technologies, including modelling and remote sensing, while closely interacting with stakeholders.

We need programming skills for model development, data analysis, and visualization of our results to support the creation of digital twins of landscapes from farms to national scales. These digital twins will incorporate state of the art remote sensing information and be combined with modelling techniques using both AI and process-based modelling frameworks. Ultimately this will be used to visualize and predict impacts of environmental changes, management, and economic developments on landscape function.

The position will be available from 1 August 2026 or as soon as possible thereafter. The duration of the position is 2 years.

Responsibilities and tasks

Your main role as part of the support team at Land-CRAFT will be to support research activities with programming and visualisation related tasks.
Main responsibilities and tasks include:

- Development of knowledge-guided machine learning approaches for combining remote-sensing data and process-modelling for landscape modelling
- Develop programming pipeline for analysis datasets (derived datasets)
- Programming quality control checks for the source data and to report the data issues periodically
- Development of convenient and reusable libraries and user interfaces to support team activities
- Building and maintaining open-source tools for in-house analyses
- Turning research codes into user-friendly interfaces for accessible visualization tools
- Support staff and students with programming needs (e.g. in R and/or Python)

Your profile

As a member of the Land-Craft support team, we expect you to plan and organise your tasks with initiative, regularly engage in feedback exchanges, and stay in close contact with Land-CRAFT researchers and students. The position requires that you can communicate with and support students and scientists from BSc to Professor levels, with attention to detail and quality. You have high proficiency in English and are culturally sensitive and able to work in a large group of diverse, international colleagues and students. At Land-CRAFT we emphasise good relationships among colleagues and students. It is therefore important that you have a positive and open personality, and that you are motivated by and engaged with emerging challenges and opportunities.

Application Deadline:
13 May 2026

Institute/Faculty:
Department of Agroecology

Faculty:
Faculty of Technical Sciences

Academic contact person:
Klaus Butterbach-Bahl
Centerleder, professor
+4593508238
klaus.butterbach-bahl@agro.au.dk
+4593508238

Vacant positions:
1

Number of months:
24

Hours per week:
37

Expected date of accession:
01/08/2026

Qualifications:

- MSc or PhD in data/computer science, software development, engineering, physics, mathematics or related fields
- Knowledge and understanding of programming concepts, workflow development, and data pipelines
- Demonstrated work experience in computer programming
- Knowledge of several programming languages (e.g., Python, R, C++) is required
- Experience in developing, analyzing, and assessing modelling and simulation frameworks within industrial or research projects
- Experience with deploying and developing machine learning workflows
- Experience with visualization platforms
- Working experience with high-performance computing
- Demonstrated ability to communicate complex technical subjects in a clear manner
- Good collaboration and communications skills across different groups of employees
- High level of Danish for stakeholder communication regarding visualization needs
- Interest in and willingness to acquire general knowledge about the Center's research areas.

Who we are

At the Department of Agroecology, our main goal is to contribute to sustainable solutions to some of the world's biggest problems within the areas of soil, plants, animals, humans, and the environment. We want to make a difference by contributing to both fundamental knowledge generation and the attainment of sustainable production systems via innovative research, contracted policy advice, and education. We offer professional laboratories, greenhouses, semi-field, and field-scale research facilities, advanced computing capacities as well as an extensive national and international researcher network. The department consists of nine research sections with around 350 highly skilled employees, of which approximately 50% are scientific staff. More information can be found here.

We believe in encouraging inclusion, acceptance, and understanding by employing staff who bring unique perspectives to our department.

What we offer

- A collaborative, international research environment that combines high academic standards with an informal and supportive atmosphere. We value accountability, curiosity, flexibility, and teamwork in everything we do.
- An inclusive and respectful workplace culture, where mutual trust, kindness, and professional dialogue are part of daily life. We encourage open communication and develop a cohesive sense of community across teams and disciplines.
- A flexible working environment that supports work-life balance and individual needs.
- An active institutional commitment to diversity, equity, and inclusion – in recruitment, career development, and everyday interactions.
- An innovative and meaningful workplace where your work contributes to solving real-world challenges. No two days are alike, and we welcome creative thinking and new ideas.
- Support for international researchers and their families, including Relocation Service and an Expat Partner Programme

Living and working in Denmark

- Subsidised childcare and free education from primary school through university.
- Universal healthcare for you and your family as residents.
- Five weeks of paid holiday per year.
- Generous parental leave – up to 52 weeks shared between parents, with full or partial salary.

Place of Work

The place of work is Aarhus University, Ole Worms Alle 3, DK-8000 Aarhus C. The affiliation will be with the Department of Agroecology.

Any questions about the position can be directed to Klaus Butterbach-Bahl (klaus.butterbach-bahl@agro.au.dk).

Formalities and salary range

Salary and terms as agreed between the Danish Ministry of Taxation and the Confederation of Professional Unions.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 37,000 students (FTEs) and 8.700 employees and has an annual revenue of EUR 1.106 billion. Learn more at www.international.au.dk/