

# Department of Psychology and Behavioural Science - Research Assistant: Applied AI/ML

The Department of Psychology and Behavioural Sciences, Aarhus University invites applications for a position as an Applied AI/ML Research Assistant, with an expected start date on August 1, 2026. The position is full-time employment (37 hours a week) for 6 - 10 months. This position is particularly suited to candidates seeking to strengthen their research portfolio through AI model development and scientific publication.

## The Research Project

The position is part of the FOOD NOSTALGI-AI, funded by AUFF NOVA, and led by Assistant Professor Alejandra Zaragoza Scherman, affiliated to the Center on Autobiographical Memory Research (CON AMORE) and the Centre for Integrative Business Psychology (CIBP), at the Department of Psychology and Behavioural Sciences, Aarhus University. The project investigates how nostalgia is expressed in food communication by integrating visual and textual signals. The project will combine curated research datasets with additional publicly available datasets of food-related images and text. Because the labelled dataset is relatively small, the project will rely primarily on either zero-/few-shot learning with frontier large language/vision models or transfer learning and fine-tuning of pretrained models. This research-driven project integrates computer vision, natural language processing, and modelling of emotions (i.e., nostalgia), offering the opportunity to contribute to a novel multimodal AI problem with clear research publication potential.

## Job Description

The Applied AI/ML Research Assistant will help with design, training, and evaluation of novel machine learning models capable of identifying nostalgic content in food-related communication. The role requires expertise in deep learning, computer vision, natural language processing, and multimodal modelling, as well as the ability to translate abstract psychological constructs into computational representations.

The candidate will collaborate with researchers from Aarhus University (Department of Psychology and Behavioural Science, Department of Management, Department of Computer Science), the IT University of Copenhagen, and the Pioneer Centre for AI, ensuring both technical rigor and conceptual validity. The successful candidate will be co-author on resulting scientific publications and will contribute to research outputs targeting leading AI and interdisciplinary venues.

Your responsibilities will, among other things, include:

- Design and implement deep learning models for detecting nostalgia in food-related content
- Develop computer vision models for analysing food imagery
- Implement NLP models for analysing short-form text (e.g., captions, descriptions)
- Build and evaluate multimodal models combining image and text with curated research datasets and additional public datasets of food imagery and text
- Contribute to the development of annotation protocols for nostalgia
- Implement data preprocessing, augmentation, and quality control pipelines
- Apply zero-/few-shot learning, transfer learning, and fine-tuning strategies suitable for limited labelled datasets
- Evaluate model performance using appropriate metrics
- Conduct error analysis to distinguish nostalgia from related affective states
- Apply explainability/interpretability techniques to interpret model outputs
- Contribute to manuscript preparation for peer-reviewed publication
- Assist with figures, methods descriptions, and technical appendices
- Document models, training pipelines, and results
- Maintain a reproducible GitHub repository

Present results to interdisciplinary collaborators

## Your qualifications

**Application Deadline:**  
01 June 2026

**Institute/Faculty:**  
Department of  
Psychology and  
Behavioural Sciences

**Faculty:**  
Aarhus BSS

**Academic contact person:**  
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- MSc in Computer Science, Artificial Intelligence, Machine Learning, Mathematics, Data Science, or a related field
- Strong Python programming skills
- Experience with deep learning frameworks (PyTorch, TensorFlow, JAX, or HuggingFace)
- Expertise in computer vision (CNNs, Vision Transformers, pretrained models)
- NLP experience with short-form text (captions or social media content)
- Experience training and evaluating machine learning models
- Experience working with limited datasets and transfer learning
- Understanding of statistical evaluation methods
- Experience with multimodal models (image + text)
- Familiarity with affective computing or emotion recognition
- Experience with model interpretability methods
- Prior involvement in research-oriented or interdisciplinary AI projects
- Familiarity with prompting Large Language Models (LLMs) and Large Vision Models (LVMs) will be a plus.

### **Who we are**

The Department of Psychology and Behavioural Sciences is part of Aarhus BSS, Aarhus University – a top 100 university. Aarhus BSS has achieved the triple-crown AACSB, AMBA and EQUIS accreditations.

At the Department of Psychology and Behavioural Sciences, we teach and conduct research into the most significant subject areas of psychology. The department employs around 55-60 academic staff members and 40 PhD students. Our researchers have a strong tradition for collaborating with Danish as well as international researchers from many different academic fields such as health and psychiatry, education, pedagogic, linguistics, philosophy, religious studies, organizational development and management, economics and neuroscience.

### **Further information**

For more information about the Department of Psychology and Behavioural Sciences, please visit: <http://psy.au.dk/en/>

For further information regarding the position, please contact Assistant Professor Alejandra Zaragoza Scherman, e-mail: [alejandra@psy.au.dk](mailto:alejandra@psy.au.dk)

If you need help uploading your application or have any questions about the recruitment process, please contact HR Coordinator, Charlotte Thomsen, e-mail: [charlotte@au.dk](mailto:charlotte@au.dk)

### **Place of Work**

Department of Psychology and Behavioural Sciences, Bartholins Allé 11, DK-8000, Aarhus C.

### **Application deadline**

June 1st, 2026

### **Qualification requirements**

The qualification requirement for appointment as research assistant is a Master's degree.

### **International applicant?**

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Please find more information here: <https://internationalstaff.au.dk/relocationservice/>

Please find more information about research opportunities at Aarhus University here: <http://international.au.dk/research/>

### **Terms of employment**

The appointment is made in accordance with the [Memorandum on Job Structure for Academic Staff at Danish Universities](#) as well as the circular on the [Collective Agreement for Academics Employed by the State](#) (in Danish).

The job content and qualification requirements are described in further detail in the [Ministerial Order on the Appointment of Academic Staff at Universities](#).

## Application procedure

When you apply for this position it is mandatory to attach the following:

- Application
- Curriculum Vitae. You are encouraged to declare any periods of leave without research activity, including, for example, maternity leave, since your research activities are assessed in relation to your actual research time
- Education (diploma for master's, PhD and possibly higher doctoral degree)

In addition the following documents can be included in the application:

- Technical statement (max 1 page) describing a machine learning model they previously trained, including the dataset used, model architecture, evaluation approach, and their specific contribution.
- Links to GitHub repositories or examples of machine learning projects.
- List of publications (the enclosed publications must be clearly marked on the list of publications)
- Publications. Up to three publications may be submitted. In the event of several authors the publications must be accompanied by a co-author statement concerning the applicant's share of the collaborative work with the consent of the co-authors. [This template may be used for the purpose.](#)
- Teaching portfolio. The specific requirements regarding the documentation can be found [here](#)

Materials which cannot be uploaded together with the application may be submitted in three copies to Aarhus BSS HR & PhD, Aarhus University, Bartholins Allé 16, DK-8000 Aarhus C.

Read more about how to apply for an academic post at Aarhus BSS [here](#)

### The evaluation process

After the application deadline, an assessment committee is appointed. Please note that the assessment of applicants is based solely on the material received prior to the application deadline. For further information, see [Guidelines for Assessment Committee, Aarhus BSS](#).

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/](http://www.international.au.dk/)*