

# Assistant Professor in NLP at AarhusNLP, Center for Humanities Computing

Assistant Professor in NLP at AarhusNLP, Center for Humanities Computing, Aarhus University.

AarhusNLP is seeking a fixed-term (three-year) assistant professor in NLP. The position is set to begin 1 October or as soon as possible thereafter.

We are a research group based at the Center for Humanities Computing, Aarhus University, focusing on investigating and developing NLP and AI technologies. Our research areas include model evaluation and post-training, representation learning, and the development of open-source software libraries for NLP. We are dedicated to delivering state-of-the-art language technology tailored specifically for the Scandinavian context. The assistant professorship is funded by the *Danish Ministry of Digital Affairs' AI Initiative Danish Foundation Models* project, the *Lex.Ilm* project with *Lex – Denmark's National Encyclopedia*, and the *Danish National Research Foundation's TEXT Center*.

## Position Summary

The successful candidate will work on alignment, preference optimization, and evaluation of LLMs for mid- to low-resource languages. The main goal is to develop advanced post-training techniques that align pre-trained transformer-based LLMs with cultural values and linguistic norms. By focusing on low-resource languages, the research should address challenges such as data scarcity, cultural sensitivity, inclusivity, and the need for robust preference optimization methods that go beyond standard fine-tuning.

Key research objectives include:

- Developing efficient algorithms: exploring and designing training strategies (e.g., supervised finetuning, reinforcement learning, or new alignment protocols) or inference-time scaling methods suitable for low-resource settings, such as Nordic languages.
- Preference optimization and alignment: embedding usecase-specific values and preferences into LLMs to ensure respectful and context-aware language generation. These may include cultural norms, ethical considerations, and societal values.
- Evaluation and quality assurance: accurately measuring model performance on nondifferentiable properties, including user satisfaction, cultural appropriateness, and domain-specific quality measures (e.g., information retrieval or question-answering for Nordic applications).

## Teaching:

- Teaching the course Natural Language Processing at the Cognitive Science program.
- Complete the University Pedagogical Programme as part of employment.

## Additional Responsibilities

Apart from research and teaching activities, the successful candidate will have 20% of their time dedicated to administrative tasks:

- Manage daily administrative duties within AarhusNLP, supporting the group's operations and research efforts.
- Proactively identify, pursue, and contribute to securing external funding to sustain and grow AarhusNLP's research initiatives.

## Qualifications:

- A Ph.D. or equivalent in Computational Linguistics, Computer Science, or a related field (e.g., Cognitive Science), with specialization in NLP, Machine

**Application Deadline:**  
17 September 2025

**Faculty:**  
Faculty of Arts

**Institute/Faculty:**  
School of Culture and Society

**Academic contact person:**  
Kristoffer Laigaard  
Nielbo  
Professor  
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+4587162903

**Vacant positions:**  
1

**Hours per week:**  
37

**Number of months:**  
36

**Expected date of accession:**  
01/10/2025

Learning, or a similar area.

- Experience and interest in leading largescale open collaborations toward shared project goals.
- Expertise in LLM architectures and training paradigms (transformer models, finetuning strategies, RLHF, etc.).
- Experience with multilingual and lowresource NLP.
- Programming skills in Python and proficiency in deep learning frameworks (e.g., PyTorch, TensorFlow) and their use in HPC environments.
- A strong or emerging publication record in NLP, ML, or related disciplines.
- Excellent written and verbal communication skills in English. Knowledge of Danish or another Nordic language is a plus, but not required.
- Engagement in opensource communities is helpful, though not mandatory.
- Proven experience in evaluating language models and related systems.

AarhusNLP is a research group at Aarhus University located at Center for Humanities Computing. We investigate and develop NLP and AI tools focusing on model evaluation and post-training, representation learning, and development of software libraries for NLP researchers. We are particularly committed to developing state-of-the-art language technology for the Scandinavian countries. Center for Humanities Computing is a research and development unit located at the Faculty of Arts, Aarhus University consisting of researchers, engineers and project managers.

Language and further information

If the successful applicant is not fluent in Danish, s/he will be expected to acquire the language within a period of approximately two years.

Applications must be uploaded in English.

For further information about the content of the position, please contact Center Director, Professor Kristoffer Nielbo (kln@cas.au.dk).

For further information about the application procedure, please contact HR support on e-mail [iks-hr-sag@au.dk](mailto:iks-hr-sag@au.dk).

For a more detailed description of Center for Humanities Computing, please visit: <https://chc.au.dk/>.

For more information on the School of Culture and Society, please visit: <http://cas.au.dk>.

The Work Environment

This position will be based at the Center for Humanities Computing - a research and development unit at Aarhus University that collaborates with researchers from arts and humanities (Faculty of Arts) at Aarhus University.

Our offices are located in Nobel Parken, 8000 Aarhus C and holds about 30 employees. CHC values a healthy work-life-balance and offers work conditions where flexible hours and some amount of remote work is possible.

The School Culture and Society

At the School of Culture and Society, the object of research and teaching is the interplay between culture and society in time and space:

- From the traditional disciplines of the humanities and theology to applied social research
- From Antiquity to the issues facing contemporary societies
- From local questions to global challenges.

The school's ambition is to produce compelling research with an international resonance as well as to offer teaching and talent development of the highest quality. The school has a broad cooperative interface with society as a whole, both in Denmark and abroad, and contributes to social innovation, research communication and further and continuing education.

For further information about the school, please see <http://cas.au.dk/en/>.

International applicants

International applicants are encouraged to check [Family and work-life balance](#) and [Attractive working conditions](#) for further information about the benefits of working at Aarhus University and in Denmark, including healthcare, paid holidays and, if relevant, maternity/paternity leave, childcare and schooling. Aarhus University offers a broad variety of services for international researchers and accompanying families, including a [relocation service](#) and career counselling for expat partners. For information about taxation, see [Taxation aspects of international researchers' employment by AU](#).

#### Faculty of Arts

The Faculty of Arts is one of five main academic areas at Aarhus University. The faculty contributes to Aarhus University's research, talent development, knowledge exchange and degree programmes.

With its 550 academic staff members, 240 PhD students, 9,500 BA and MA students, and 1,500 students following continuing/further education programmes, the faculty constitutes a strong and diverse research and teaching environment.

The Faculty of Arts consists of the School of Communication and Culture, the School of Culture and Society and the Danish School of Education. Each of these units has strong academic environments and forms the basis for interdisciplinary research and education.

The faculty's academic environments and degree programmes engage in international collaboration and share the common goal of contributing to the development of knowledge, welfare and culture in interaction with society.

[Read](#) more at [arts.au.dk/en](https://arts.au.dk/en)

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

#### Qualification requirements

Applicants should hold a PhD or equivalent academic qualifications.

#### Formalities

- Faculty of Arts refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities ([the Appointment Order](#)).
- Appointment shall be in accordance with the [collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations](#).
- Further information on qualification requirements and job content may be found in the [Memorandum on Job Structure for Academic Staff at Danish Universities](#).
- Further information on the application and supplementary materials may be found in [Application Guidelines](#).
- The application must outline the applicant's motivation for applying for the position, attaching a curriculum vitae, a teaching portfolio, a complete list of published works, copies of degree certificates and examples of academic production (**mandatory, but no more than two examples**). Please upload this material electronically along with your application.

If nothing else is noted, applications must be submitted in English. Application deadline is at 11.59 pm Danish time (same as Central European Time) on the deadline day.

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.

Shortlists may be prepared with the candidates that have been selected for a detailed academic assessment. A committee set up by the head of school is responsible for selecting the most qualified candidates. See this link for further information about shortlisting at the Faculty of Arts: [shortlisting](#)

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The Faculty of Arts consists of the School of Communication and Culture, the School of Culture and Society, the Danish School of Education, and the Centre for Teaching Development and Digital Media. Each of these units has strong academic environments and forms the basis for interdisciplinary research and education.

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### **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 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at [www.international.au.dk/](https://www.international.au.dk/)*