

## **RECRUITMENT PACK**

### This document includes the following information:

- Job Description
- Person Specification
- Additional information

#### Making an application:

#### Please complete the short on-line application form and attach the following 2 documents:

- a) A covering letter setting out how you meet the requirements of the role as set out in the person specification.
- b) A full curriculum vitae (CV) including any publications. You should specify your 4 most significant papers published within the past 5 years (or an equivalent number appropriate to being an early career researcher). Applicants from within the UK should indicate which publications have been submitted to the current REF and any assessment of the rating for each piece of work; For more information about the REF visit <u>www.ref.ac.uk</u>

Shortlisting is undertaken by a panel after the closing date on the basis of information provided and failure to upload the requested documents will result in an application being rejected.

#### We recommend that you take a copy of this recruitment pack to help with your preparation.

#### Our commitment to Equality, Diversity and Inclusion

The <u>diversity of our community</u> is more than where our staff and students come from. More than 1000 of our staff and students identify as LGBTQ+, more than 1,300 have declared a disability and many members of our community follow a religion or belief.

We recognise the value that diversity brings and so we want to recruit, develop, retain and motivate an increasingly diverse workforce. We also want to attract people who will be good citizens, who will contribute to the life of the University and whose behaviour will have a positive impact on those around them.

Our <u>Strategy</u> sets out how we will do this through the delivery of a fair and supportive working environment for all.

The University of Essex is proud to be part of the Disability Confident scheme and is committed to supporting diversity and equality, representative of our inclusive community. As part of our commitment to this scheme any candidate who has a disability and meets all the essential criteria for the role will be offered an interview. We also work in partnership with national disability organisation **AccessAble** who provide detailed online access guides to many of our campus buildings and facilities which you may find useful.

Please note: We are only accepting on-line applications for this post. However, if you have a disability that makes it difficult for you to provide us with information in this way, please contact the Resourcing Team (01206 876559) for help.

## Closing Date: 21 April 2024

#### Interviews are planned for: To be confirmed.

# UNIVERSITY OF ESSEX JOB DESCRIPTION

Job Title and Grade:	Senior Research Officer (ASR); Grade 8
Contract:	Full-time, Fixed term from April 2024 until 31 December 2026. This post is fixed-term due to funding.
Hours:	36 hours per week
Salary:	Starting salary £37,099 per annum
Department/Section:	School of Computer Science and Electronic Engineering (CSEE) & Institute for Analytics and Data Science (IADS)
Reports on a day-to- day to:	Principal Investigator of the project
Responsible to:	Principal Investigator of the project

# PURPOSE OF THE ROLE

The University of Essex offers an exciting opportunity for a Research Fellow in Artificial Intelligence to work on the EU/UKRI funded project ELOQUENCE (Multilingual and Cross-cultural interactions for context-aware, and bias-controlled dialogue systems for safety-critical applications).

The School of Computer Science and Electronics Engineering (CSEE) has a long-standing tradition on artificial intelligence. In the recent Research Excellence Framework 2021 (REF'2021), CSEE ranks 6<sup>th</sup> in the UK for research power and 9<sup>th</sup> for research impact (Grade Point Average). The Institute for Analytics and Data Science (IADS) was created in July 2014 to bring together all the University's expertise and work in analytics and data science. IADS research utilises new forms of data and advanced analytic techniques to tackle social challenges, engage with business and the wider non-academic community, is international in outlook and scope, and multidisciplinary and interdisciplinary by nature.

For this post, we are interested in attracting a researcher working on Natural Language Processing, Speech Processing and Machine Learning/AI. Some areas of interest include (but not limited to)

- Multi-model foundation model to combine text, speech and vision.
- Multi-lingual text and speech processing
- Factual retrieval-augmented generation
- Human feedback incorporation using HCI techniques.
- Ethics dimension of AI in real world use cases

The successful candidate will have a publications record appropriate for their experience and will be able to demonstrate evidence of potential to develop an internationally leading profile in their field.

## MAIN DUTIES OF THE POST

## Research

The successful candidate will:

• Undertake high quality independent and collaborative research in the areas of Natural Language Processing, Speech Processing and Machine Learning/Al.



- Develop novel methods that apply multi-model foundational model to context-aware multilingual speech model.
- Lead work on learning from human-feedback on relevance of retrieved documents and generated responses and reduce hallucination.
- Design experiments and benchmarks, in the context of the ELOQUENCE project, to analyse LLM on different use cases.
- Produce research outputs for publications at acceptable levels of academic excellence and disseminate the results of the project as required.
- Develop and undertake applied research in collaboration with the other project partners.
- Attend and contribute to project meetings and other activities as required by the project.

### Leadership and Citizenship

- Provide leadership for the implementation and timely completion of objectives and tasks assigned to the University of Essex on the ELOQUENCE project.
- To engage in continuing professional development in relevant to the project areas and incorporate latest advances in the project development.
- To actively disseminate the project results to national and international networks and establish links with relevant stakeholders to increase project dissemination.

These duties are a guide to the work that the post holder will initially be required to undertake. They may be changed from time to time to meet changing circumstances.

## **TERMS OF APPOINTMENT**

For a full description of the terms of appointment for this post please visit our website.

# UNIVERSITY OF ESSEX PERSON SPECIFICATION

 JOB TITLE: Senior Research Officer (ASR); Grade 8
 POST REF: REQ08339

QUALIFICATIONS / PROFESSIONAL RECOGNITION		Essential	Desirable
•	Relevant doctoral level degree in NLP, machine learning or a related area.	Х	
•	Postdoctoral research experience.		Х
E)	PERIENCE/KNOWLEDGE	Essential	Desirable
•	Multi-disciplinary knowledge with expertise in Natural Language Processing (NLP) / Machine Learning/ Speech Processing.	Х	
	A strong track record of research in NLP, machine learning or related areas.	Х	
	Strong programming skills as appropriate for the research area.	Х	
•	Experience with modern deep learning frameworks (e.g. PyTorch).	Х	
•	Evidence of a research agenda, engagement in high-quality research activity, and a developing research profile.	Х	
	A developing record of publications in internationally recognised reputable journals and conferences.	Х	
	Evidence of successful participation and contribution to interdisciplinary and national/international collaborations.		X
	Experience of interacting with non-academic sectors through knowledge transfer, impact activities or public engagement (research).		x
	Experience of running and contributing to workshops, symposia and conferences.		X
SKILLS/ABILITIES		Essential	Desirable
	Excellent demonstrable communication and presentation skills.	Х	
	Excellent time management, organisational and project management skills.	Х	
•	Excellent interpersonal skills, and ability to inspire, connect, network and collaborate.	Х	
•	Ability and willingness to travel for the purposes of the project.	Х	
•	Ability to work effectively and positively, both independently and as part of a team.	Х	

DFESSIONAL VALUES	Essential	
		Desirable
A commitment to professional development. A commitment to professional development.	Х	
A commitment to research quality, innovation in research field and impact generation outside of the academic world.	Х	
A commitment to grant income generation and research publication.	X	
A strong and well-articulated commitment to the University's values and mission	X	
A commitment to collaborative working, particularly across disciplinary boundaries, to deliver common aims and outcomes.	Х	
ELIGIBILITY		Desirable
The ability to meet UK 'right to work' requirements.*	Х	
	A commitment to research quality, innovation in research field and mpact generation outside of the academic world. A commitment to grant income generation and research publication. A strong and well-articulated commitment to the University's values and mission A commitment to collaborative working, particularly across disciplinary boundaries, to deliver common aims and outcomes. GIBILITY	A commitment to proceedence do comprise to comp

\* In accordance with Home Office guidance and the Asylum, Immigration and Nationality Act 2006 the University of Essex has a responsibility to ensure all employees are eligible to work in the UK. Prior to commencing employment, the successful candidate will be asked to provide documentary evidence to this effect. For those who do not have a right to work in the UK, the University is a UKVI licensed sponsor and may be able to provide sponsorship to successful candidates who are offered skilled roles and meet the eligibility criteria. Further information about UK immigration requirements and working in the UK can be found on the Home Office website <a href="https://www.gov.uk/skilled-worker-visa">www.gov.uk/skilled-worker-visa</a>

# **ADDITIONAL INFORMATION**

## Department

You can find more information about the department on our website:

https://www.essex.ac.uk/departments/computer-science-and-electronic-engineering

## **Our Strategy**

Please find a link to our Strategy webpages below:

https://www.essex.ac.uk/about/university-strategy

## **General information**

The University of Essex is a campus based University and all academic appointments are made with the expectation that you will be present on campus to fulfil the requirements of your position. At the time of a job offer, the possibility of hybrid working, will be discussed and considered on an individual basis, but you will be required to be based within the UK.

Informal enquiries may be made to Prof Haris Mouratidis (e-mail: <u>h.mouratidis@essex.ac.uk</u>). However, all applications must be made online.

At the University of Essex we use consistent language and terminology that articulates more clearly the responsibilities for education, research and leadership/citizenship associated with each academic role. This will help new colleagues to understand the University values from the moment they engage either as an applicant or new colleague, and help them to understand the future career pathways available to them as they become more established in their role.

We advertise our salaries on a range to indicate the trajectory of progression that can be made. Appointments are usually made at the start of the salary range. The university salary structure includes automatic pay progression within the published grades, subject to service and performance. In addition to this, there are performance related annual pay review schemes in place.

## **Benefits**

As an employer we offer a range of benefits and a commitment to career development and equal opportunities in an environment that both reflects and creates a rich interaction of people, disciplines and ideas.

- Pension scheme
- Generous holiday entitlement
- Competitive salaries
- Training and development
- Family Friendly policies
- On campus childcare facilities, for more information visit <u>www.wivenhoeparkdaynursery.co.uk</u>
- Relocation support package for qualifying staff
- Interest free season ticket loan
- Range of optional salary exchange tax benefits (pension and bicycle schemes)

## Staff communities, networks and forums

We are proud to have a number of <u>staff Networks</u> including: <u>Access Forum</u>, <u>Black Asian and Minority</u> <u>Ethnic community Staff Forum</u>, <u>Essex Women's Network</u>, <u>Global Forum</u>, <u>LGBTQ+ and Allies</u> <u>Community and Parent's Support Network</u>.

Our Colchester campus based <u>Faith Centre</u> hosts regular services, meetings and events organised by our chaplains and faith representatives.

This document is produced by:

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