

Academic Role Profile

Addendum

This document provides additional information relating to both specific aspects of the post/Faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Job Purpose.

Job Title:

Lecturer/Senior Lecturer/Reader in AI and Health Data Analytics

Surrey Institute for People-Centred AI (PAI) appointment**Faculty School/Department(s) for collaboration:**

School of Health and Medical Sciences (FHMS), Department of Computer Science (FEPS), Department of Mathematics (FEPS), Surrey Business School (FASS)

Job Summary/Purpose

We are excited to be recruiting to the new post of Lecturer/Senior Lecturer/Reader in AI and Health Data Analytics as part of our new PAI Institute. The PAI Institute's mission is to bring together world-leading expertise in fundamental AI theory and practice with cross-University domain expertise to realise and shape AI impact for public good. The PAI Institute will establish a beacon of national leadership for people-centred AI research and training in partnership with industry, UKRI and government on a national and international basis. If you join us, you will collaborate with colleagues in delivering world-leading research and teaching capability to students and businesses, focusing on the interactions between human and AI systems by utilising a true cross-disciplinary approach to research in AI, to solve real-world challenges and problems. AI holds great promise for transforming almost every aspect of healthcare and health research, ranging from monitoring and diagnosis to health care delivery. AI has the potential to personalise health care for the individual in the community and at home. Realisation of the potential of AI in health care requires strong partnership between AI expertise, existing health (domain) expertise, key stakeholders (NHS) and the public. To this end, Surrey are excited to be formally establishing an integrated AI-Health ecosystem with key stakeholders to lead the translation of AI enabled technologies into health care practice for individual patient benefit. We are therefore welcoming candidates who are enthusiastic team players with experience of developing and implementing new methods in AI and data science (e.g. video analytics) and data linkage that will enable us to tackle key public health challenges affecting the health and wellbeing of UK citizens. It is likely you will have expertise in prediction, risk profiling, stratification and in evaluating AI/digital health technologies in real-world settings, alongside conducting impactful research capable of improving clinical decision-making and the organisation and delivery of NHS and wider health/social care services.

The appointee will lead research, collaboration and project grant applications in AI-based health data analytics. The post will collaborate closely with the School of Health Sciences, within the Faculty of Health and Medical Sciences, as part of the newly established People-Centred AI Institute at the University of Surrey. The post holder will establish and lead a portfolio of research, in collaboration with AI Institute and health science experts across the University. The appointee will also teach and assess on undergraduate and postgraduate programmes in their specialist areas as well as contributing more generally to the School's educational programmes, including supervision. The appointee may be invited to contribute to teaching in their specialist areas across the wider Faculty and/or University. The post holder will also contribute to leading and delivering teaching in cross-University AI programmes at postgraduate level.

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Person Specification AI

- Research leadership in AI, machine learning, data science, computer vision, audio-visual machine perception, video analytics and/or natural language processing.
- A strong research and publication record.
- Experience in developing research proposals and securing research income together with supervising postgraduate research students.
- Demonstrated track-record of successful multi-disciplinary research leadership and collaboration.
- Familiarity with development, delivery and assessment of programme units.
- Experience of working with industry and other professional bodies.
- Excellent presentation, communication and interpersonal skills.
- Consistently collegial and supportive approach to students and colleagues.
- Experience and potential for independent and collaborative research leadership.

Person Specification Health Data Analytics

- Experience of applying data analytics to improve clinical decision-making in, and organisation and delivery of, health care through enhanced:
 - Prediction
 - Risk profiling and stratification
- Demonstrated track record in:
 - Employing novel statistical/computational techniques to extract, link and analyse real-world electronic data (health records, patient-level data from completed randomised controlled trials, genomics, proteomics, medical images)
 - Analysing data from other sources including film (video analytics).
 - Mining free text
- Understanding of the challenges of evaluating AI/digital health technologies in a real-world setting

Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Job Purpose.

	Essential/ Desirable
A higher research degree (PhD)	E
Experience of applying AI to improve clinical decision-making in, and organisation and delivery of, health care through enhanced prediction, risk profiling and stratification.	E
Understanding of the challenges of evaluating AI/digital health technologies in a real-world setting	E
Internationally excellent research performance demonstrating research leadership in AI, machine learning, data science, video analytics, computer vision, audio-visual machine perception and/or natural language processing.	E
Evidence of external research grant income generation in this field relevant to career stage.	E
Strong publication record relevant to career stage with a track record of publishing high quality outputs.	E
Demonstrated track record in employing novel statistical/computational techniques to extract, link and analyse real-world electronic data (health records, patient-level data from completed randomised controlled trials,	E

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genomics, proteomics, medical images). This may include analysing data from other sources including film (video analytics) and mining free text.	
Experience and potential for independent and collaborative research leadership including working with industry and other professional bodies	E
Demonstrated ability to successfully supervise postgraduate and doctoral students	E
Evidence of high-quality teaching	E
Evidence of scholarly contributions to conferences, professional meetings and societies at an international level, and evidence of achievements in other external activities at an international level.	E

Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Job Purpose.

Main Responsibilities/Activities

- Contribute as a Principal Investigator of the AI Institute to establishing and leading pan-University research in People-Centred AI for the benefit of people and society in Health-related AI.
- Develop and lead a research portfolio in the area of AI and AI-Health Data Analytics.
- Contribute to, and lead, teaching at undergraduate and postgraduate level.
- Lead a programme of research by managing associated financial/physical resources and recruiting/supervising/guiding/mentoring the work of staff and postgraduate students in own specialist subject area.
- Sustain a strong track-record of publication of high-quality research findings in appropriate journals and international conferences.
- Secure consistent research funding; contribute to planning and coordinating large multi-disciplinary or multi-Faculty bids involving collaborative groups.
- Enhance reputation in own subject area by engaging in external activities at national level such as contributions to professional networks, meetings, conferences, societies, professional and/or government bodies, editing/refereeing journals and papers.
- Perform administrative duties throughout the Institute/Department/Schools which contribute to the general life and work of the University.

N.B. The above list is not exhaustive.