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| **Job Title:** | Research Fellow A |

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| **Responsible to:** | Head of research group, or principal investigator |

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| **Responsible for:** | Not applicable |

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| Job Summary and Purpose: |
| To undertake research in accordance with the specified research project(s) under the supervision of the principal investigator. |

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| Main Responsibilities/Activities |
| To undertake a range of research activities within a specified research area, assuming responsibility for specific areas of projects and making use of new research techniques and methods, in consultation with the research award holder or supervisor. This may include fieldwork, interviews, laboratory experimentation, critical evaluation and interpretation, computer-based data analysis and evaluation or library research.Using initiative and creativity to identify areas for research develop new research methods and extend the research portfolio. Analysing and interpreting results of own research. Write up results and prepare papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend appropriate conferences for the purpose of disseminating research results of personal development. The post holder may also contribute to writing bids for research grants and will contribute to collaborative decision making with colleagues in areas of research.Continually to update knowledge and develop skills, and translate knowledge of advances in the area into research activity.To plan and manage own research activity in collaboration with others. To carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control.To contribute to teaching in the Faculty by carrying out student supervision and/or demonstrating within the post holder’s area of expertise and under the direct guidance of a member of departmental academic staff, as appropriate.The post holder may occasionally be required to supervise more junior research staff. |

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| **Person Specification**  |
| The post holder must have:A doctoral degree in a relevant discipline (although individuals who have almost completed a doctoral degree may be appointed). Consideration may also be given to individuals who do not hold a doctoral degree but have required skills based on a number of years experience in specified / relevant fields The post holder will have authority over some aspects of project work and must be capable of providing academic judgement, offering original and creative thoughts and be able to interpret and analyse results.  |

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| **Relationships and Contacts** |
| Direct responsibility to the principal investigator or academic supervisor. The post holder may be asked to serve on a relevant Faculty committee. There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions. |

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| **Special Requirements** |
| To be available to participate in fieldwork as required by the specified research project |

### All staff are expected to:

* Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
* Help maintain a safe working environment by:
* Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
* Following local codes of safe working practices and the University of Surrey Health and Safety Policy
* Undertake such other duties within the scope of the post as may be requested by your Manager.

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| **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 Role Profile.  |
| **Job Title:** | Research Fellow A in Health Data Sciences |
| **Background Information/Relationships** This is a post-doctoral opportunity to participate in publicly-funded international collaborations on data-centred research in the area of healthy ageing and dementia. The post holder will contribute to two research projects. The Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Ageing Study in India (LASI) is a large population-based study supported by the US National Institute on Aging, a renowned research funder in the area, to understand the risks and prevalence of dementia in India. LASI-DAD implements the Harmonized Cognitive Assessment Protocol (HCAP, https://hrs.isr.umich.edu/data-products/hcap) and is conducted within a larger longitudinal ageing study in India with a nationally representative of over 70,000 middle- and older-aged adults. The second project in which the post holder will be involved is also funded by the US National Institute on Aging, aiming to develop early markers of cognitive decline and dementia from survey response behaviours. The project will utilise data from large longitudinal ageing studies like the LASI, the English Longitudinal Ageing Study (ELSA, https://www.elsa-project.ac.uk/), the Survey of Health, Ageing and Retirement in Europe (SHARE, http://www.share-project.org/), and the Health and Retirement Study (HRS, https://hrs.isr.umich.edu/). The two projects aspire to understand and predict risks of mild cognitive impairment (MCI) and dementia using population-based longitudinal ageing data from various aspects. That is, the first project (LASI-DAD) mainly focuses on survey-based cognitive, health, and quality of life assessment data; meanwhile, the second project focuses on the processes people provide those data (i.e., the survey response behaviours). |
| **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 Role Profile. |
|  | **Essential/Desirable** |
| 1. Knowledge in data sciences and machine learning and their applications in health and healthcare.
 | Essential |
| 1. Statistical programming skills using R or Python.
 | Essential |
| 1. Research experiences involving advanced statistical/data science modelling of longitudinal data related to ageing (preferable data from Health and Retirement Study, English Longitudinal Study in Ageing, or other sister longitudinal ageing studies around the world).
 | Desirable |
| 1. Experiences related to design, test and/or operation of survey instruments in health-related settings.
 | Desirable |
| 1. Published research articles or manuscripts close to publication.
 | Desirable |
| 1. Experiences related to the development of research proposal.
 | Desirable |
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| **Special Requirements**  | **Essential/Desirable** |
| Due to the nature of international collaborations, the post holder would be expected to attend research meetings and workshops scheduled during the evening UK time (18:00-21:00). | Essential |
| **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 Role Profile. |
| 1. Develop and test data science and machine learning models using longitudinal ageing data to predict mild cognitive impairment and dementia and to better stratify individuals according to their risk profiles.
2. Lead and contribute to high-quality and high-impact publications.
3. Explore new opportunities for knowledge discovery and public health and clinical applications, in the means of initiating new analyses and developing research proposals.
4. Participate in relevant research meetings and workshops.

**N.B. The above list is not exhaustive**. |