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| Last updated: | August 2020 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow** | | |
| School/Service: | Electronics and Computer Science | | |
| Faculty: | Faculty of Engineering and Physical Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Project Principal Investigator | | |
| Posts responsible for: |  | | |
| Post base: | Office-based | | |

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| Job purpose |
| To undertake fundamental research on deep learning-based natural language models for information extraction in accordance with the GloSAT (Global Surface Air Temperature) research project and under the supervision of the project investigators. To undertake leadership, management and engagement activities. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | Undertake a range of high-quality research activities associated with GloSAT (Global Surface Air Temperature) research project under the supervision of the project investigators. This may include developing and analysing models and algorithms, user trials, software development, computer-based data analysis and evaluation or library research. | 60 % |
|  | Regularly disseminate findings by taking the lead in preparing publication materials for refereed journals, presenting results at conferences, or exhibiting work at other appropriate events. | 20 % |
|  | 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. Contribute to the development of research links with project partners in UK and USA, and the development of impact from the research through engagement with industry and government. | 10 % |
|  | To attend GloSAT project meetings and workshops on a regular basis, including teleconferences and in-person meetings (some of which will be held abroad). | 5 % |
|  | Any other duties as allocated by line manager following consultation with the post holder. | 5% |

| Internal and external relationships |
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| Direct responsibility to project principal investigator.  Will work with collaborators within the AIC research group, UK-based GloSAT project partners (e.g. Met Office, National Oceanography Centre, University of Reading) and project advisory board members (e.g. National Oceanic and Atmospheric Administration agency in the USA).  May be asked to serve on a relevant Academic Unit committee, such as the research and enterprise committee. |

| Special Requirements |
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| To attend national and international conferences for the purpose of disseminating research results.  To attend regular project meetings in person (at least twice a year) in the UK.  To participate in regular teleconferences with external project partners.  *Applications for Research Fellow positions will be considered from candidates who are working towards or nearing completion of a relevant PhD qualification. The title of Research Fellow will be applied upon successful completion of the PhD. Prior to the qualification being awarded the title of* ***Senior Research Assistant*** *will be given.* |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD or professional qualifications and experience in natural language processing, artificial intelligence or a closely related subject area (completed or about to complete).  Published research in top quality journals and conferences.  Experience of information extraction | Has experience in one or more of the following areas:   * Natural Language Processing * Information Extraction * Deep learning * Artificial Intelligence   Strong programming, statistical and data analysis skills  Has experience in developing natural language processing and/or text-analytics based applications.  Has experience in collaboration across disciplines.  Experience of working with industrial partners | Thesis / Publications / interview |
| Planning and organising | Able to organise own research activities to deadline and quality standards |  | Publications and interview |
| Problem solving and initiative | Able to develop understanding of complex problems and apply in-depth knowledge to address them  Able to develop original techniques/methods |  | Publications and thesis  Publications and thesis |
| Management and teamwork | Able to supervise research students  Able to contribute to School management and administrative processes  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development |  | Interview and/or CV  Interview  Interview |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience  Able to present research results at group meetings and conferences  Able to write up research results for publication in leading peer-viewed journals  Work proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes |  | Publications and interview  Publications  Publications  Interview |
| Other skills and behaviours | Understanding of relevant Health & Safety issues  Proactive in promoting a working environment that is inclusive and engaging; recognising the value diversity brings. |  | Interview  Interview |
| Special requirements | Able to attend project workshops as well as national and international conferences to present research results. |  | Publications |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work |  |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) |  |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling |  |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public |  |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |