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**JOB DESCRIPTION**

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| Post title: | **Research Fellow AI for Security** | | |
| Academic Unit/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: | Principle Investigator | | |
| Posts responsible for: | Cyber-ThreaD project | | |
| Post base: | Office-based | | |

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| Job purpose |
| To undertake research in accordance with the specified research project under the supervision of the award holder. To undertake leadership, management, and engagement activities.  Applications 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 completion of PhD.  Prior to the qualification being awarded the title of Senior Research Assistant will be given. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | To develop and carry out the research indicated in the research project. | 70 % |
|  | Regularly disseminate findings by taking charge of preparing publication materials for referred journals, presenting results at conferences, or exhibiting work at other appropriate events. | 10 % |
|  | Collaborate/work on original research tasks with colleagues in other institutions. | 10 % |
|  | To present research results to interested participants outside the project. | 5 % |
|  | Any other duties that fall within the scope of the post as allocated by the line manager following consultation with the post holder. | 5% |

| Internal and external relationships |
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| Other members of the department/University staff.  External collaborators  Relevant suppliers and external contacts |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD degree in Computer Science or equivalent professional qualifications and experience in a related field.  Experience in a relevant technical field, e.g., machine learning, deep learning, natural language processing {NLP}, neural networks etc  Understanding of how to implement specialist ideas into code.  Ability to make effective use of standard and specialist computer systems  Detailed understanding and knowledge of AI techniques, like NLP or data mining applied to cyber security. | Experience in NLP techniques for text extraction.  Knowledge in dataset creation.  Knowledge in topic modelling and unsupervised learning. | CV + Interview |
| Planning and organising | Able to organise own research activities to deadline and quality standards.  Able to operate within the framework of a project plan. | Experience of project management | 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. |  | CV + Interview |
| Management and teamwork | Able to supervise work of junior research staff.  Able to proactively work with colleagues in other work areas to achieve outcomes.  Confident to raise issues early and support project re-planning / pivot etc. |  | Interview |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing.  Able to present research results at group meetings and conferences.  Able to write up research results for publication in high quality peer-viewed journals. |  | Interview |
| Other skills and behaviours | Positive attitude to colleagues and students.  Proactive in promoting a working environment that is inclusive and engaging; recognising the value diversity brings. |  | Interview + Letters |

**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 assessment 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 |  |  |  |