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| Last updated: | September 2021 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow** | | |
| School/Department: | School of Humanities | | |
| Faculty: | Arts and Humanities |  |  |
| Career pathway: | Education, Research and Enterprise | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Fraser Sturt, Professor of Archaeology | | |
| Posts responsible for: | N/A | | |
| 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  To develop and explore Artificial Intelligence based search and discovery methods for marine and maritime archaeological data as a part of the UKRI AHRC funded project ‘Unpath’d Waters’: Marine and Maritime Collections in the UK. Working as part of a large mutli-organisational team you will determine how recent developments in AI can be used **to** enrich sparse data, increase interoperability and enable a diversity of search options. It will make use of both Natural Language Processing and Computer Vision techniques**.** |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | Develop AI/ML based approaches to search and discovery for Unpath’d project | 60% |
|  | Assist with writing up and dissemination of project results | 10 % |
|  | Support project partners to secure successful project delivery | 10 % |
|  | Contribute to team meetings and international workshops to develop and disseminate the project and attend a number of annual project management meetings with the broader team | 5 % |
|  | Contribute towards a training programme associated with the project | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder (this may include contributions to taught modules etc.) | 10 % |

| Internal and external relationships |
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| Report to and work with Project management team (in particular Barney Sloane (HE) and Julian Richards (ADS))  Report to and work with project partners |

| Special Requirements |
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| *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 equivalent professional qualifications and experience in Computer Science or Archaeological Computing  High level knowledge of Natural Language Processing OR AI for search and discovery  Knowledge of data types/formats relating to maritime archaeology and museums collections | Experience of implementing machine learning/object detection within heritage contexts  Working knowledge of Geographical Information Systems  Experience of working with data collected as a part of maritime archaeological investigations  Experience of working with Exegesis  Experience of working with and ‘cleaning’ Historic Environment Record data | Application, CV, interview |
| Planning and organising | Experience of organising large disparate datasets | Experience of conference organisation | CV 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 to create connections between different data sources. |  | Application, CV, interview |
| Management and teamwork | Able to manage complex workloads effectively  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development. |  | Application, CV, 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.  Work proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes. | Able to write up research results for publication in leading peer-viewed journals. | Application, CV and interview |
| Other skills and behaviours | Ability to work as an individual and as part of a group. | Evidence of collaborative research activities. | At interview |
| Special requirements |  |  | CV |

**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 | x |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |