## Job Description and Person Specification

**JOB DESCRIPTION**

### Post title:
Research Software Engineer

### Academic Unit/Service:
Electronics and Computer Science

### Faculty:
Faculty of Physical Sciences and Engineering

### Career Pathway:
Education, Research and Enterprise (ERE) Level: 4

### *ERE category:
Enterprise pathway

### Posts responsible to:
SSI Deputy Director

### Posts responsible for:
 n/a

### Post base:
Office-based

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### Job purpose

To assist in the delivery of collaborative, multi-site, interdisciplinary software engineering consultancy to the portfolio of clients developed by the Southampton Research Software Group (SRSG) and the Software Sustainability Institute (SSI).

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### Key accountabilities/primary responsibilities

<table>
<thead>
<tr>
<th></th>
<th>% Time</th>
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</thead>
<tbody>
<tr>
<td>1. Delivery of activities of specialised software consultancy services to research partners, clients and industrial collaborators either as part of co-funded collaborative projects, SSI-funded consultancy or paying customers.</td>
<td>50 %</td>
</tr>
<tr>
<td>2. Support the engagement in key research/consultancy areas to promote the activities of the group, such as seminars, conference presentations and training events.</td>
<td>10 %</td>
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<tr>
<td>3. Write materials for documentation, dissemination and tutorials and knowledge to meet the needs research partners, clients and industrial collaborators.</td>
<td>10 %</td>
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<tr>
<td>4. Keep abreast of software development techniques and practices used by the research community.</td>
<td>10 %</td>
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<tr>
<td>5. Engage with the UK research community – including the RSE community - to identify areas opportunities for collaboration or consultancy.</td>
<td>10 %</td>
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<tr>
<td>6. Any other duties that fall within the scope of the post as allocated by the line manager following consultation with the post holder.</td>
<td>10 %</td>
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</tbody>
</table>
### Internal and external relationships

- SSI Deputy Director (internal) and SRSG Directors (internal)
- Pamela Ugwudike (Faculty of Social Sciences) (internal)
- Adrienne Chapman (Faculty of Engineering and Physical Sciences) (internal)
- SRSG clients (internal)
- SSI collaborators (external)
- RSE Community (external)

### Special Requirements

- Travel to other universities and research organisations will be required – typically within the UK although some European travel may be possible.
- Flexible hours of work may be required if appropriate as well as core hours.
- Good communication skills are essential
- The maintenance of confidentiality in information and data management at all times is mandatory
- The post will require the job holder to possess excellent interpersonal and customer service skills.
## Person Specification

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Essential</th>
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</table>
| Qualifications, knowledge and experience     | • PhD or equivalent professional qualifications and experience in scientific research. This level of knowledge and experience may have been achieved via a postgraduate degree or professional qualifications in a subject area supplemented by demonstrable experience in scientific research.  
• Development experience with any two of the following: Python, R, Javascript/Node.js, Ruby, Fortan  
• Demonstrable understanding of the Bash shell  
• Practical experience of version control systems  
• Ability to deploy software to, and configure, common linux distributions  
• Ability to conduct data searches to identify relevant data for research purposes. | • History of contributions to interdisciplinary research projects or the delivery of consultancy services  
• Experience of web development  
• Web server configuration, e.g. Apache or NGINX  
• Experience with database technology, e.g. SQL/NoSQL  
• Knowledge of debates surrounding the predictive technologies used in the justice system, including those used by the police. |
| Planning and organising                      | • Ability to progress collaborative multi-site activities to meet deadlines and quality standards  
• Proven organisational and time management skills | • Demonstrable experience of managing projects |
| Problem solving and initiative               | • Able to independently solve a range of problems by responding to varying circumstances  
• Ability to apply specialist knowledge to analyse complex problems and recommend solutions | |
| Management and teamwork                      | • Able to contribute to team efficiency through sharing information and constructively supporting others.  
• Able to maintain good working relationships across a range of colleagues, clients and stakeholders.  
• Able to work effectively independently and identify issues that must be raised with the team | |
| Communicating and influencing                | • Ability to write clear and concise technical material  
• Ability to prepare and deliver presentations to audiences with different levels of technical ability  
• Ability to identify and articulate requirements and issues arising from meetings  
• Ability to train others and conduct tutorial-style activities | Experience of Software Carpentry instructing or helping |
| Other skills and behaviours                  | • Evidence of good interpersonal skills.  
• A flexible approach and manner  
• A willingness and demonstrable experience of learning new technologies and methods of working  
• A passion for research | |
| Special requirements                         | N/A                                                                       | |

**Special requirements**

N/A

**How to be assessed**

- Application/Interview
## JOB HAZARD ANALYSIS

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

| ☒ 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. |

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### ENVIRONMENTAL EXPOSURES

<table>
<thead>
<tr>
<th>Occasionally (&lt;30% of time)</th>
<th>Frequently (30-60% of time)</th>
<th>Constantly (&gt; 60% of time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside work</td>
<td></td>
<td></td>
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<tr>
<td>Extremes of temperature (eg: fridge/ furnace)</td>
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<td></td>
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<tr>
<td><strong>Potential for exposure to body fluids</strong></td>
<td></td>
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<td><strong>Noise (greater than 80 dba - 8 hrs twa)</strong></td>
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<tr>
<td><strong>Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below:</strong></td>
<td></td>
<td></td>
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<tr>
<td>Frequent hand washing</td>
<td></td>
<td></td>
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<tr>
<td>Ionising radiation</td>
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</tbody>
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### 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

<table>
<thead>
<tr>
<th>Load manual handling</th>
<th>Repetitive crouching/kneeling/stooping</th>
<th>Repetitive pulling/pushing</th>
<th>Repetitive lifting</th>
<th>Standing for prolonged periods</th>
<th>Repetitive climbing (ie: steps, stools, ladders, stairs)</th>
<th>Fine motor grips (eg: pipetting)</th>
<th>Gross motor grips</th>
<th>Repetitive reaching below shoulder height</th>
<th>Repetitive reaching at shoulder height</th>
<th>Repetitive reaching above shoulder height</th>
</tr>
</thead>
</table>

### PSYCHOSOCIAL ISSUES

<table>
<thead>
<tr>
<th>Face to face contact with public</th>
<th>Lone working</th>
<th><strong>Shift work/night work/on call duties</strong></th>
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## - 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.