



UNIVERSITY OF  
LINCOLN

## UNIVERSITY OF LINCOLN JOB DESCRIPTION

<b>JOB TITLE</b>	Senior Software Developer				
<b>DEPARTMENT</b>	School of Computer Science				
<b>LOCATION</b>	Brayford				
<b>JOB NUMBER</b>	COS267	<b>GRADE</b>	6	<b>DATE</b>	June 2021
<b>REPORTS TO</b>	Technical Resource Manager				

### CONTEXT

The University of Lincoln is an ambitious Higher Education institution. The University was awarded Gold – the highest standard possible – in the 2017 Teaching Excellence Framework: a nationwide assessment of teaching quality across UK higher education institutions. It is also committed to growing student numbers, using new partnerships with external organisations and innovative forms of programme delivery. The School of Computer Science has played a key part in achieving this success, pursuing a blend of fundamental, applied and interdisciplinary research, with particular strengths in Computer Vision, Machine Learning, Robotics and Autonomous Systems, and Human-Computer Interaction.

We are looking to recruit an enthusiastic Senior Software Developer to work with the Technical Support team within the school, supporting teaching and research across a range of computing based disciplines that include cloud, machine learning, robotics, networks and security, games, human computer interaction, and more.

The post holder will be responsible for the on-going support and development of bespoke software tools used in support of SoCS activities and the student experience, as well as identifying areas of opportunity for improvement of practices using software tools. This will include custom developments, FOSS solutions, and existing off-the-shelf products. Examples of existing bespoke software include an internal student management system, a network-based PC status reporting system used across the computing labs, and an augmented reality experience used for marketing the school.

As the software development expert within the team the post holder will also be the primary facilitator for working with academics to ensure workshop material can be run in the computing labs and working with students and academics to support effective teaching material.

While the role is primarily focused on software, the post holder will also be required to provide some hardware setup and support. This can be in the provision of equipment for research, or mass-rollout of lab support. In support of equipment and facilities additional duties include procurement, health and safety, and asset record management.

If you would like to know more about this opportunity, please contact Dr Salah Al-Majeed (Acting Head of the School of Computer Science, [salmajeed@lincoln.ac.uk](mailto:salmajeed@lincoln.ac.uk)) or Matt Ashton (Technical Resource Manager, [mashton@lincoln.ac.uk](mailto:mashton@lincoln.ac.uk)).

## KEY RESPONSIBILITIES

### General

- Interpretation of customer requirements to produce solutions and/or advice to produce a high level of learning support.
- Thorough understanding of the techniques and procedures of complex processes or specialised systems.
- Utilise experience and highly specialist knowledge to identify opportunities for improvement of technical support efficiency and student experience improvement through the implementation of new tools and procedures.
- Writing of complex instruction sheets and guidance material.
- Influence in determining the delivery of service within the area to agreed SLA's.
- Decision making on routine matters in consultation with colleagues.
- Carry out tasks requiring a high level of physical or sensory techniques.
- Train or instruct students on standard tasks or activities that require them to assess competency and provide feedback.
- Support the learning and development of colleagues on the SoCS Technical Support team through knowledge transfer.

### Preparation of Experiences, Machinery and Equipment

- Set up equipment and prepare materials for teaching and/or research. Aid in conducting experiments and using specialist equipment.
- Work closely with academic staff to determine the level of delivery that is required for teaching.
- Work closely with research staff to recommend, procure, and setup specialist equipment and software to meet research demands.
- Guidance of health and safety and budgetary aspects related to supported equipment.
- Advise and influence equipping teaching facilities to meet teaching needs within agreed budgets through research and understanding the needs of broad technical requirements.

### Demonstration of Procedures

- Demonstrate practical procedures and techniques to undergraduates during practical classes, when requested by the academic in charge.
- Be responsible for coaching and guiding academic staff and students in the techniques, procedures, complex processes and specialist systems.
- Be responsible for producing written complex instruction sheets and guides for students to use in the laboratory/workshop/studio.
- Support the production of and test/troubleshoot materials used in taught modules.
- As required introduce individuals to the workplace and tailor the process to the differing needs of the learners.
- Demonstrate subject specific knowledge and experience through specialist advice and guidance to colleagues in the SoCS team of technicians.

### **Provision of Technical Advice**

- Provide specialist technical advice to undergraduate project and research students and researchers in the design of experiments or equipment.
- Advise Managers and Academic staff on developments in laboratory/workshop procedures/methods and new equipment (including costs) that may be available and how this would benefit the area and students.
- Be main point of reference to colleagues for guidance and advice in all aspects of laboratory/workshop/studio processes and equipment.
- Advise on the operational timetable for academic planning activities as well as in respect of space planning.

### **Liaison and Networking**

- Where directed by the Line Manager, attend internal and external working parties or committees representing either the technical department or school.
- Build and maintain relationships with colleagues across the University and external parties e.g. suppliers, contractors etc.

### **Asset Management**

- Make decisions on appropriate equipment supply for research projects.
- Maintain and audit asset records of equipment in-stock and in-use.
- Conduct audits of research and teaching spaces against asset records.

### **Personal Development**

Develops and maintains knowledge and communicates the technical specialism by:

- Reading relevant literature and undertaking training.
- Maintains an awareness of current developments in specialist technical areas and takes significant responsibility for own personal development.
- Provides specialist guidance and advice to less experienced colleagues and users to ensure that work is conducted in an appropriate manner.

### **Health and Safety**

- Provide support in the production of health and safety documentation and policies,
- Produce and maintain health and safety documents and procedures specifically to support teaching.
- Advise school colleagues in the production and review of specialist health and safety documents for research projects, line management, and equipment use.

**In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.**

## ADDITIONAL INFORMATION

<b>Key working relationships/networks</b>	
<b>Internal</b>	<b>External</b>
<ul style="list-style-type: none"><li>• Head of School</li><li>• Technical Resource Manager</li><li>• School Senior Academics</li><li>• School Programme Leaders</li><li>• School academic, administrative, technical, and learning support staff</li><li>• College Director of Operations</li><li>• Health and Safety Officers</li><li>• Students</li><li>• Research staff</li><li>• Technical colleagues in other schools</li></ul>	<ul style="list-style-type: none"><li>• Relevant academic and professional groups</li><li>• Relevant national, regional and international networks</li><li>• Materials suppliers and contractors</li></ul>

**UNIVERSITY OF LINCOLN  
PERSON SPECIFICATION**



<b>JOB TITLE</b>	Senior Technician	<b>JOB NUMBER</b>	COS267
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<b>Selection Criteria</b>	<b>Essential (E) or Desirable (D)</b>	<b>Where Evidenced Application (A) Interview (I) Presentation (P) References (R)</b>
<b>Qualifications:</b>		
Degree level qualification or equivalent experience	<b>E</b>	<b>A</b>
Industry relevant qualifications	<b>D</b>	<b>A</b>
Membership of relevant professional bodies	<b>D</b>	<b>A</b>
<b>Experience:</b>		
Previous experience of working in software development	<b>E</b>	<b>A/I</b>
Experience of working with different computing platforms	<b>D</b>	<b>A/I</b>
Experience of supporting or troubleshooting computing related hardware	<b>D</b>	<b>A/I</b>
Experience of researching, testing, and recommending hardware or software upgrades	<b>E</b>	<b>A/I</b>
Experience of identifying areas of improvement in efficiency and support levels or specialist equipment.	<b>E</b>	<b>A/I</b>
Experience of configuring or supporting large-scale, self-contained complex network environments	<b>D</b>	<b>A/I</b>
Development experience with games or mixed reality	<b>D</b>	<b>A/I</b>
Experience in arranging or working at events, computing or otherwise	<b>D</b>	<b>A/I</b>
Experience in developing experiments for machine learning/AI	<b>D</b>	<b>A/I</b>
<b>Skills and Knowledge:</b>		
Working knowledge of the full Software Development Life Cycle	<b>E</b>	<b>A/I</b>
Knowledge of a variety of development languages and tools	<b>E</b>	<b>A/I</b>
Good written and verbal communication skills to enable explanation of technical issues and processes	<b>E</b>	<b>A/I</b>
Knowledge of the development of games, VR, or AR.	<b>D</b>	<b>A/I</b>
Knowledge of machine learning/AI tools and experiments.	<b>D</b>	<b>A/I</b>
<b>Competencies and Personal Attributes:</b>		
Enthusiastic and flexible approach to work	<b>E</b>	<b>I</b>
Effective team worker	<b>E</b>	<b>A/I</b>
Able to work independently with confidence	<b>E</b>	<b>I</b>
Customer orientated approach to work	<b>E</b>	<b>A/I</b>
Proactive and able to demonstrate initiative	<b>E</b>	<b>A/I</b>

**Essential Requirements** are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements

<b>Author</b>	MA	<b>HRBA</b>	
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