

Digital Software Developer

| | | | |
|----------------|---|----------------|------------------------|
| Department | Advanced Forming Research Centre, Department of Design, Manufacture and Engineering Management (www.strath.ac.uk/dmem/) | | |
| Faculty | Faculty of Engineering (www.strath.ac.uk/engineering/) | | |
| Staff Category | Knowledge Exchange | Reference No | 71272 |
| Reports To | The Head of Department, through the AFRC Chief Operating Officer and Team Leader | Grade: | 6 |
| Salary Range: | £26829 - £30175 | Contract Type: | Fixed Term (12 months) |
| FTE: | 1 (35 hours/week) | Closing Date | Sunday, 21 May 2017 |

Job Advert

The University of Strathclyde in Glasgow possesses a large internationally rated Engineering Faculty with a proud history of successful joint ventures with industrial and enterprise partners. As a part of the University's strategic development the Advanced Forming Research Centre (AFRC) has been established at Inchinnan near Glasgow's International Airport in partnership with multi-national companies such as Rolls-Royce and The Boeing Company. The AFRC is the embodiment of over £30 million collaborative investment by Industrial, Academic and Government partners to establish a world leading research facility for forging and forming technologies. Since 2011 it has been a part of the High Value Manufacturing Catapult.

The AFRC has established a Digital Manufacturing team in recognition of a growing research and industrial demand for the application of digital technologies for the benefit of the UK manufacturing sector. A Digital Software Developer is sought to support research programmes and deliver projects for the AFRC. The role sought will be focussed on the development of visualisation, virtual reality (VR) and augmented reality (AR) at the AFRC and will be required to identify and deliver projects in these areas. In this role you will be a key point of contact for the software provision to both internal project work and external engagement. The post-holder will also be required to become integral to the development of capabilities within the AFRC and as part of AFRC growth.

To be considered for this role, you will either be educated to degree level or be able to demonstrate relevant industrial experience within an industrial environment. You will have knowledge of software development for VR/AR technology; the relevance and applicability of these technologies for manufacturing; and have delivered projects using the technologies. The post-holder will be expected to demonstrate and exert an interest in the technologies and have experience of 'app' development and/or games development. You will have experience of supporting research and development in the context of VR/AR/ games development. You will have project management experience and are able to work on projects with minimal support. You will have an ability to plan and organise your own workload, you will have excellent troubleshooting skills, including a methodical approach to solving complex problems, and an ability to work as part of a team. You will have excellent written and verbal communication skills, with an ability to interact with a range of stakeholders in both industry and academia and an ability to listen, engage and to present complex information in an accessible way to a range of audiences.

Job Description

Brief Outline of Job:

Under the guidance of an AFRC Team Leader, the Digital Software Developer will assist in the delivery of AFRC research programmes and the development and operation of AFRC visualisation, VR and AR capability, including knowledge exchange with AFRC partners and customers. In particular, the post holder will be expected to contribute to manufacturing engineering research programmes with a specific focus on delivering software development for visualisation solutions to support all areas of research and deliver solutions to the AFRC's industrial partners. To this purpose, the post holder will be also expected to

collaborate with colleagues to ensure that knowledge exchange advances support AFRC advances; input as a team member to administrative activities; and assist where required with other relevant knowledge exchange activities.

Main Activities/Responsibilities:

| | |
|-----|---|
| 1. | Assist the delivery of knowledge exchange projects, by providing expert knowledge to develop VR/AR software capabilities using AFRC equipment and provide expert knowledge and advice to external partners and customers. |
| 2. | Within the framework of the project, provide expert guidance to research teams on software development and development of VR/AR solutions to research challenges. |
| 3. | Working with the Visualisation Engineer, support the software development of new applications for the AFRC in the VR/AR environment |
| 4. | As part of the wider team, responsible for the development, maintenance and adherence to quality systems within the visualisation suite with support from the AFRC Quality Team. |
| 5. | Liaising directly with external partners, to provide support consistent with the terms of the project and to maintain positive working relationships and partnerships as well as the development of collaborative project opportunities. |
| 6. | Plan and manage own workload, with guidance from the Team Lead or Project Lead as required. |
| 7. | Write up results of own knowledge exchange activities and contribute to the production of relevant reports and publications. |
| 8. | Present complex information at internal events to communicate AFRC capability periodically. |
| 9. | As part of the wider team, build contacts internally and externally, and participate in networks for the exchange of information, form relationships with customers, suppliers and colleagues for future collaboration. |
| 10. | Respond to industrial enquiries for assistance in support of digital manufacturing challenges and assisting the preparation of statements of work, quotations and funding applications. |
| 11. | Contribute to collaborative decision making with colleagues on academic/engineering content in areas of research and knowledge exchange. |
| 12. | Contributing to the overall AFRC growth by working as an integral part of the AFRC team effort, inputting to the research programme, capability development and departmental administrative activities, as necessary, to meet strategic objectives. |
| 13. | Engage in continuous professional development. |

Person Specification

Educational and/or Professional Qualifications

(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)

E.1 Good first degree (minimum class 2:1) in a relevant engineering discipline i.e. mechanical engineering, software engineering, computer science or manufacturing engineering, or equivalent industry experience.

D.1 Incorporated Engineer/Scientist, member of professional body in an appropriate discipline.

Experience

E.2 Knowledge and experience of virtual and augmented reality technologies

E.3 Professional experience of carrying out software development for virtual or augmented reality activities within a manufacturing engineering context either within an academic or industrial enterprise.

E.4 Experience of programming for game development

E.5 General programming ability including one of the following: Java, C++, C#, Object C

D.2 Knowledge and experience of working with the High Value Manufacturing Catapult

D.3 Experience of delivering commercial projects using VR and AR

Job Related Skills and Achievements

E.6 Evidence of contribution to the successful planning and delivery of projects within an academic or industrial environment.

E.7 An ability to plan and organise own workload effectively with general supervision from senior colleagues.

D.4 Experience of knowledge exchange related activities, an ability to disseminate results and to contribute to research and commercial proposals.

Personal Attributes

E.8 Excellent verbal and written communication skills, with an ability to interact with a range of stakeholders in both industry and academia.

E.9 An ability to work independently and as part of a team, through participation in collaborative projects, and developing evidence of leadership.

Other Relevant Factors

D.5 Evidence of the ability to work in a team and to listen, engage, persuade, and present complex information in an accessible way to a range of audiences

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted before interview without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (<http://www.strath.ac.uk/hr/workforus>).

Informal enquiries about the post can be directed to Danny McMahon, Senior Manufacturing Engineer and Digital Manufacturing Theme Leader (Daniel.mcmahon@strath.ac.uk, 0141 534 5575).

Conditions of Employment

Conditions of employment relating to the Knowledge Exchange staff category can be found at: [Conditions of Employment](#).

Probation

Where applicable, the successful applicant will be required to serve a 9 month probationary period.

Pension

The successful applicant will be eligible to join the Universities' Superannuation Scheme. Further information regarding this scheme is available from [Payroll and Pensions](#).

Relocation

Where applicable, the University offers a relocation package to support new employees who meet the eligibility criteria. The relocation package is offered as a contribution towards costs incurred, and is designed to be flexible, allowing staff to use the financial support available in the way that will be most helpful to them. Further details are outlined in the Relocation Policy.

Interviews

Formal interviews for this post will be held on Friday, 2 June 2017.

Equality and Diversity

We value diversity and welcome applications from all sections of the community.

The University currently holds a Bronze Athena SWAN award, recognising our commitment to advancing women's careers in science, technology, engineering, maths and medicine (STEMM) employment in academia.

