University of Edinburgh

Job Description: NeSC Research Engineer

1 Job Details

Job title: Research Engineer  
School: School of Physics  
Unit: National e-Science Centre
Line manager: Senior Research Engineer or Project Manager, Deputy Director.

2 Job Purpose

To develop and deploy advanced computing software to support scientific and other academic research in a particular field, for academic and industrial partners of the centre.

3 Main Responsibilities

1. To evaluate, deploy and integrate novel computing systems to address scientific or business problems in the relevant application field.

2. Employ software engineering techniques to determine research requirements and develop scientific and technical software that meets those requirements, on time and within budget.

3. Communicate effectively with internal and external contacts and collaborators to develop working relationships, disseminate project results and so contribute to the success of the centre.

4. Produce research papers, technical reports, WWW-based information, training and educational material to enhance the reputation of the centre and the University.

4 Planning and Organising

- Planning personal workload 1-2 months in advance.
- Responding effectively to queries and problems from project partners and managers.
- Organising presentation of information, e.g. to user support and training.
- Contributing to research papers and technical reports.

5 Problem Solving

- Solve technical implementation problems encountered with novel projects using leading edge and experimental software.
- Solve technical queries from project partners and users promptly.
- Exercise initiative when providing consultancy to external clients and users.

6 Decision Making

- Take responsibility for organising personal workload and interacting with project partners.
- In collaboration with others, deciding upon choice of technologies for a particular project and contributing to the project plan.
- Deciding appropriate test regimes for evaluating components.
- Being self-motivated and able to work without close supervision.
7 **Key Contacts/Relationships**
- With internal and external project partners on project requirements and novel technical solutions to software problems.
- With users of the software to evaluate quality and usability.
- With the centre’s training team to update them on new technologies and to provide example applications, documentation, reference sites, web-site information and tutorials.
- With other researchers in the field via conferences and workshops.

8 **Knowledge, Skills and Experience Needed for the Job**
- Must demonstrate software engineering skills and a relevant programming language.
- Should have experience of requirements gathering.
- Must have a good degree in a science, engineering or computing discipline.
- Should have experience of research projects and working with scientists or non-computer experts.
- Should have experience of distributed computing or the relevant application area.
- Must be able to communicate effectively with partners and work productively as part of a multi-institutional team.
- Must show enthusiasm, be willing to learn new skills and work flexibly to address new problems.
- Must be willing to travel within the UK and internationally.

9 **Dimensions**
- Communicate effectively with project partners (usually 5-10 people).
- Produce 1-2 major technical and/or research documents per annum and interact with a wide range of external technical contacts, possibly through conference presentations, workshop participation or collaborative project meetings.

10 **Job Context and any other relevant information**
- NeSC operates within a fast-moving, highly technological field and has an enviable reputation both nationally and internationally.
- NeSC software engineers work on leading-edge computing technology with a high degree of novelty both in the technology and its application.