|  |  |
| --- | --- |
| Last updated: | 20 July 2017 |

**JOB DESCRIPTION**

|  |  |
| --- | --- |
| Post title: | **Research Engineer** |
| Academic Unit/Service: | IT Innovation Centre, Electronics and Computer Science |
| Faculty: | FPSE |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research  |
| Posts responsible to: | Principal Research Engineer, IT Innovation Centre |
| Posts responsible for: | Co-ordination of some activities of other Research Engineers |
| Post base: | Office-based |

|  |
| --- |
| Job purpose |
| To undertake applied research and development involving the innovative application of IT. |

| Key accountabilities/primary responsibilities | % Time |
| --- | --- |
|  | To develop software in an agile team environment, and become involved in all aspects of the project lifecycle, including requirements analysis, architecture, documentation, and demonstrating proofs of concept. | Percentage of time spent on each responsibility varies significantly depending on project assignment |
|  | To prepare technical notes, deliverable reports, publications for conferences and journals, and publicity material for dissemination. |
|  | To prepare and give technical presentations at internal project meetings, meetings with project partners and reviews with external funding bodies or clients, workshops, and international conferences. |
|  | To participate in internal project meetings, meetings with project partners and reviews with external funding bodies or clients |
|  | To assist in winning funding for new projects by providing technical input to proposals managed by others. |

| Internal and external relationships |
| --- |
| Internal to IT Innovation: as a member of project teams, the post holder will be responsible for defined tasks and may co-ordinate the day-to-day activities of any other Research Engineers working on these tasks in a team-based environment.External to the University: the post holder will undertake technical liaison with research staff working for project partners in collaborative projects |

| Special Requirements |
| --- |
| Occasional short-term travel to project meetings within the UK and internationally (normally within the EU). Attending national and international conferences to disseminate our research results and to learn of others' results. |

**PERSON SPECIFICATION**

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | Good degree in a relevant areaPhD or an equivalent combination of qualifications and experience in computer science or a related discipline.Keen interest in new and emerging technologies, and the desire to identify and develop compelling software-based applications of those technologiesStrong analytical and applied research skillsDemonstrable commercial and/or academic experience of applying IT-based research to real-world problems.Experience of relevant computer science methods and tools.Hands-on experience of designing and implementing softwareExpertise in some or all of Java, Python, C++ and R | Skills and experience in distributed systems, and in one or more of:data analysis, data modelling and SQL/NoSQL databasessemantic languages for knowledge representation and reasoning (e.g. OWL, SPARQL and RDF);natural language processing;information security or risk management;big data systems (e.g. Storm, Spark, Hadoop, Hive and HBase);web applications and RESTful service development..Experience of UML at business or system levels | CVCV, InterviewCV, InterviewCV, InterviewCV, InterviewCV, InterviewCV, InterviewCV, InterviewCV, InterviewCV, Interview |
| Planning and organising | Able to plan and manage work effectively to meet required deadlinesAble to prioritise tasks |  | InterviewInterview |
| Problem solving and initiative | Able to understand complex problems and apply specialist knowledge to solve them |  | CV, Interview |
| Management and teamwork | Able to collaborate professionally and effectively with colleagues at all levels inside and outside IT Innovation | Able to co-ordinate the day-to-day activities of other research staff working on the same or related tasks | CV, InterviewCV, Interview |
| Communicating and influencing | Excellent interpersonal and communication skillsAble to present complex ideas clearly and effectively verbally and in writingFluent spoken and written English | Good presentation skills |  InterviewCV, InterviewCV, InterviewInterview |
| Other skills and behaviours | Keen and flexible attitude and able to work under pressureUnderstanding of, and empathy with, the mission and values of the IT Innovation Centre |  | InterviewInterview |
| Special requirements | Able to travel within the EU at short notice |  | CV, Interview |

**JOB HAZARD ANALYSIS**

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

|  |  |
| --- | --- |
| [x]  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.

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