Job Description & Person Specification

Last updated: November 2019

JOB DESCRIPTION

Post title:	**Software Engineer**
Academic Unit/Service:	iSolutions
Faculty:	Professional Services
Career Pathway:	Management, Specialist and Administrative (MSA) Level: 4
Posts responsible to:	Team Manager
Posts responsible for:	None
Post base:	Office based

Job purpose
To deliver sustainable application solutions, using commercial off the shelf applications, Software as a Service products through to in house developed applications, in support of the University's IT needs: • To work directly with the University community to deliver flexible and innovative applications in support of the University's education, research and enterprise agendas. • To support those developments by means of documentation, training, automated testing and providing third-line support for the team's areas of responsibility. • In collaboration with colleagues, to propose new and innovative solutions to organisational challenges and make recommendations for continual improvement of systems and services.

Key accountabilities/primary responsibilities	% Time

1.   Implement new services and solutions from small point solutions to enterprise wide platforms.
  • Work directly with Project Managers, Senior Software Engineers, other technical staff and the University community to capture requirements and turn them into technical specifications, produce mock-ups and agree implementation details.
  • Engineer robust solutions using agreed tools ensuring new services work seamlessly with our current diverse IT estate. Automate processes where possible to improve delivery quality and timescales and to ensure maintainability through a services lifecycle.
  • Ensure services meet University security policies and standards for both technical architecture and information management.
	55 %

2. Maintain services throughout their entire lifecycle. Deliver reliability and continued quality of services by providing; resolution of defects, security incidents/improvements, technical and end user documentation and training, automated testing of changes, third-line support for these services where appropriate.	30 %

Key accountabilities/primary responsibilities	% Time
3. Make recommendations for continual improvement of systems and services. Investigate new technologies and consider their impact to the services being delivered. In collaboration with colleagues, propose new and innovative solutions to organisational challenges.	10 %
4. Any other duties allocated by the line manager or senior management following consultation with the post holder.	5%

Internal and external relationships

The post holder will be expected to undertake the following duties as part of an integrated team and will be expected to adopt priorities and engage in activities that promote the effective working of the whole team.

Internal:
The post holder will work closely with:
- Technical specialists and service delivery teams within iSolutions
- Academic staff at all levels across the organisation
- Professional Services and Faculty colleagues across the University.

External:
The post holder will liaise with:
- Computer software and service suppliers
- Other academic institutions and related organisations to participate in collaborative activities and projects to the benefit of iSolutions and the University as a whole.

It is expected that the duties will be performed in the light of the relevant activities in Higher Education generally. The post holder will be expected to be aware of the activities and initiatives being formulated globally within the relevant specialist area and will be expected to take part in such activities should they be relevant to, and of benefit to, the work being undertaken locally.

Special Requirements

To maintain the relevant level of professional expertise and qualifications to discharge the duties of a Software Engineer and to agree with the Team Lead on a relevant professional development programme.

To have an understanding of how equality, diversity and inclusion applies to the responsibilities of the role and to actively promote equality, diversity and inclusivity in all aspects of the role.

The role will require travelling between campuses as appropriate.

There may be a requirement to work varying core hours, and on occasion to work outside normal hours, to ensure that service commitments are met.

PERSON SPECIFICATION

Criteria	Essential	Desirable	How to be assessed
Qualifications, knowledge and experience	A relevant technical, engineering or science degree and/or equivalent technical experience. **OR** Demonstrable experience in programming and systems analysis in at least two the following: • C# .NET • Java • JavaScript • Python • PHP • SQL & Database application building Proven track record of adapting to and learning new technologies, programming languages and ways of working. Knowledge of modern HTML and CSS and the impact that high quality mark-up can have on performance, accessibility and discoverability. Awareness of current and emerging; web and database technologies, languages and frameworks, and an understanding of what problems each are best suited to solving and which they are not. Relevant knowledge of information security issues and experience implementing secure systems which handle personal information and information of sensitive classifications.	Extensive experience in multiple technologies: • .Net Core • Python Flask • Groovy on Grails • Message passing protocols e.g. JSON, XML, MQTT • Modern JavaScript Frameworks • MySQL/MSSQL Server • Oracle SQL • NoSQL Databases • Other product specific frameworks Knowledge and expertise in the following: • Unit testing • Software design patterns • Continuous Integration • Continuous Delivery • User experience design • Event driven systems • System auditability • Linux Administration • Windows Administration • Cloud platform patterns and practices Lean Six Sigma White Belt	Application & Interview
Planning and organising	Ability to proactively identify, plan and manage own workload, including fully planning and owning minor technical projects. Ability to work with others to: • Agree requirements. • Agree and deliver work packages. • Meet project deadlines. • Design application-testing procedures. • Produce documentation to required standards. • Comply with release management procedures. • Consider operational support of a product during its design	Experience and understanding of change management processes	Application & Interview

Problem solving and initiative	Strong fault diagnosis and troubleshooting skills with logical and pragmatic thought processes. Ability to identify problem areas and follow problems through to resolution.	Significant experience of working in a 2nd or 3rd line support environment. Ability to take effective and creative approaches to problem solving. Confidence to challenge existing working practices and offer ideas. Methodical, calm and clear thinking under pressure.	Application & Interview
Management and teamwork	Able to work as part of a highly technical team, and to collaborate effectively with other technical specialists on project work and towards the resolution of problems. Ability to foster good relationships with colleagues and other members of the organisation.	Experience working in an Agile development team.	Application & Interview
Communicating and influencing	Ability to provide clear and concise documentation of all outputs and to review and improve existing documentation. Effective presentation skills in order to convey technical concepts to both peers and line management. A professional, customer orientated approach to service delivery.	Involvement in relevant technical communities, such as through technical blogging, attendance at workshops, or contributing to open projects.	Application & Interview
Other skills and behaviours	Confidence, experience and skills to take initiative, but know when to refer queries upwards.	The ideal candidate will have a genuine interest in web application development and be keen to further the excellent reputation of the University in this area through participation in conferences, seminars and similar events.	Application & Interview
Special requirements	The post-holder will occasionally be required to work outside normal office hours to meet the operational needs of the service. Ability to identify requirements of users across an extensive user community.		

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			