

Northumberland County Council  
**JOB DESCRIPTION**

<b>Post Title:</b> Software Developer	<b>Director/Service/Sector</b> Finance / Information Services		<b>Office Use</b>
<b>Band:</b> 8	<b>Workplace:</b> County Hall		JE ref:
<b>Responsible to:</b> Team Leader	<b>Date:</b> August 2020	<b>Manager Level</b>	HRMS ref:
<p><b>Job Purpose:</b></p> <p>The purpose of Information Services is the management of technology resources, including corporate telecommunications functions, to promote the opportunities that technology presents to the organisation and Northumberland's citizens and businesses, including the feasibility of change and its likely impact upon the business.</p> <p>To support achieving this purpose the Software Developer will be required to:</p> <ul style="list-style-type: none"> <li>• Provide high quality programming and software build skills to the Council, undertaking complex coding and program modification.</li> <li>• Provide user focussed solutions to business problems and digital services to the organisation as well as citizens and businesses of Northumberland.</li> <li>• Ensure a modern standards approach to the delivery of technology solutions is adhered to and to demonstrate leadership in identifying improvement opportunities and the application of these standards</li> <li>• Identify process optimisation opportunities and contribute to the implementation of proposed solutions.</li> <li>• Design systems with both business and technical complexity. To select appropriate design standards, methods and tools, and ensure they are applied effectively.</li> <li>• To lead and ensure provision of 3rd line support on products developed, including out of hours support as and when required</li> <li>• Coordinate build and deployment activities across systems and undertake integration testing activities</li> <li>• Collaborate with others in the service to ensure usability, accessibility, security, stability and capacity are embedded in the development of our services</li> <li>• Design and build solutions and services with security controls embedded, specifically engineered as mitigation against security threats as a core part of the solutions and services.</li> <li>• Work closely with colleagues to form and lead the council's Software Engineering community of practice.</li> </ul> <p>Information Services has a council wide remit. The ability to deal with ambiguity, complexity and diversity will be a key requirement of this role.</p>			
<b>Resources</b>	Staff	Has some responsibility for the work of others and for the allocation of resources. This may include mentoring graduates, internships and apprentices	
	Finance	Day to day responsibility for 'Small Projects' budget.	

Physical	Maintain and operate key corporate information systems, ensuring careful use of allocated tools and equipment.
Clients	Interacts with and influence on immediate colleagues. External contact with customers and suppliers, other NCC employees and partners. May have more influence in own domain.
<b>Duties and key result areas:</b> You will; <ul style="list-style-type: none"> <li>• Design and develop complex software solutions to meet the needs of the organisation and wider citizen and business needs. This involves working alone on some systems, or with colleagues, on more complex systems</li> <li>• Follow and at times lead on the development of best-practice guidelines and help to improve those guidelines</li> <li>• Follows agreed standards in order to write clean, secure and well-tested code</li> <li>• Operate the services you build and identify issues in production</li> <li>• Strong analytical skills are key, including a thorough understanding of how to interpret customer business needs and translate them into application and operational requirements.</li> <li>• Plan and lead development on sets of related stories</li> <li>• Understand the whole system and take responsibility for teaching this to others</li> <li>• Work with other disciplines to understand what needs to be built</li> <li>• Prioritise requests in accordance with agreed criteria and the needs of the organisation.</li> <li>• Helps to resolve problems (e.g. poor system performance) and faults (e.g. system failure), occurring in the operation of software – especially those requiring greater expertise due to the complexity of the software developed</li> <li>• Find ways to improve system robustness, resilience and stability</li> <li>• Conducts investigations of operational problems, makes proposals for improvement and implements them when appropriate. Participates in reviews of digital services and systems performance, provides advice and assists.</li> <li>• Responsibility for monitoring specifically allocated budgets.</li> <li>• To take part in professional development and training as identified and to attend relevant conferences/seminars/workshops as and when requested.</li> <li>• Advise and assist less experienced colleagues in the performance of their duties, this includes graduates, internships and apprentices.</li> <li>• To assist in the supervision and mentoring of any Apprentices/Trainees and or other professionals.</li> <li>• Deputise for your Team Leader in times of absence.</li> <li>• Other duties appropriate to the nature, level and grade of the post.</li> </ul>	
Transport requirements: Working patterns: Working conditions:	Travel to other work sites, area offices or training venues throughout the County and occasionally further a-field. Normal office hours but flexi-hours may apply, if colleagues provide cover. Some standby or call out arrangements may apply. Minimal exposure to working outdoors.

**PERSON SPECIFICATION**

<b>Post Title:</b> Software Developer	<b>Director/Service/Sector:</b> Finance / Information Services	Ref:
<b>Essential</b>	<b>Desirable</b>	<b>Assess by</b>
<b>Qualifications and Knowledge</b>		
<ul style="list-style-type: none"> <li>• An appropriate degree or equivalent</li> <li>• A technical qualification or evidence of competency in IT.</li> <li>• Advanced knowledge of at least one and detailed knowledge of an additional number of specialist computer languages.</li> <li>• Actively undertaking ongoing continuous professional and personal development.</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive knowledge of programming techniques and methodologies.</li> <li>• Experience of developing in C#</li> </ul>	(a), (i)
<b>Experience</b>		
<ul style="list-style-type: none"> <li>• Demonstrable record of success in developing, delivering &amp; maintaining business solutions.</li> <li>• Demonstrable record of success of building and run applications as part of a multi-functional agile delivery team</li> <li>• An active desire to provide effective customer centred services.</li> <li>• Be fully accountable for own technical work and/or project/supervisory responsibilities.</li> <li>• Establish own milestones and team objectives and delegates responsibilities.</li> </ul>		(a), (i)
<b>Skills and competencies</b>		
<ul style="list-style-type: none"> <li>• Experience of collaborating with others to review specifications.</li> <li>• Demonstrable ability to use these agreed specifications to design, code, test and document programs or scripts of medium to high complexity, using the right standards and tools.</li> <li>• Excellent skills in the latest Software Engineer best practices, principles and processes.</li> <li>• Evidence of ability to write clean, secure and well-tested code</li> <li>• Extensive experience of modern frameworks</li> <li>• Extensive experience of open source technologies like Java, JavaScript, Node.js</li> <li>• A history of developing on cloud-based environments like AWS and Azure</li> <li>• Have a good understanding of TDD and BDD</li> <li>• Sound understanding of SQL and noSQL database applications such as Postgres, MySQL, and MongoDB</li> <li>• Have working knowledge of Unix-like operating systems such as Linux and/or Mac OS X</li> <li>• Evidence of collaboration with user researchers and end users.</li> </ul>		(a), (i), (t)

<ul style="list-style-type: none"> <li>• An understanding of the difference between user needs and the desires of the user.</li> <li>• Able to prioritise and define approaches to understand the user story, guiding others in doing so.</li> <li>• Experienced in making recommendations on the best tools and methods to be used.</li> <li>• Performs a broad range of work, including develop complex software to meet user needs</li> <li>• Demonstrable commitment to a modern standards approach and experienced in guiding others in this approach.</li> <li>• History of championing technical evolution within an organisation, find, test, agree and adopt emerging technologies.</li> <li>• Experienced in following best-practice guidelines and in helping to improve those guidelines</li> <li>• Experience with distributed version control systems such as Git</li> <li>• Experience with containerisation processes and tools such as Docker and Kubernetes</li> <li>• Knowledge and experience of APIs, RESTful services and Microservice Architectures</li> <li>• Evidence of being able to identify process optimisation opportunities.</li> <li>• Experienced in design and leading the strategies for building reusable libraries and services.</li> <li>• Evidence of the design of systems characterised by medium levels of risk, impact, and business or technical complexity.</li> <li>• A history of being able to select appropriate design standards, methods and tools, and ensure they are applied effectively.</li> <li>• Knowledge of how to review the systems designs of others to ensure the selection of appropriate technology, efficient use of resources and integration of multiple systems and technology.</li> <li>• Ability to actively solicit prototypes and carry out testing with others.</li> <li>• Able to establish design patterns and iterate them. You know a variety of methods of prototyping and can choose the most appropriate ones.</li> <li>• Excellent skills to build up a useful, robust automated test suite to support a continuous deployment environment</li> <li>• You can identify, locate and fix faults.</li> <li>• Experience of providing 3rd line support on products developed, including out of hours support as and when required.</li> <li>• Experienced in operation of the services built and identification of issues in production</li> <li>• Experienced in defining the integration build.</li> <li>• Ability to coordinate build activities across systems and can undertake and support integration testing activities.</li> <li>• History of managing service components to ensure they meet business needs and performance targets.</li> </ul>		
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<ul style="list-style-type: none"> <li>• Evidence of collaboration with the Software Engineering community to ensure usability, accessibility, security, stability and capacity are embedded in the development of our citizen services.</li> <li>• Understanding of information security and ability to design solutions and services with security controls embedded, specifically engineered as mitigation against security threats as a core part of the solutions and services.</li> </ul>		
<b>Physical, mental and emotional demands</b>		
<ul style="list-style-type: none"> <li>• Commitment to high standards of professional performance.</li> <li>• Generally works from a seated position with regular need to walk, bend or carry items.</li> <li>• Need to maintain general awareness, with lengthy periods of enhanced concentration.</li> <li>• Works under general supervision. Uses discretion in identifying and resolving complex problems and assignments.</li> <li>• Contact with public/clients/ partners and internal employees</li> <li>• Ability to work to strict deadlines, dealing with conflicting demands, prioritising workload effectively. Plans own work to meet given objectives and processes</li> <li>• Exercises substantial personal responsibility and autonomy.</li> <li>• Ability to support staff, resolving conflict, motivating and managing change.</li> </ul>		(a), (i)
<b>Motivation</b>		
<ul style="list-style-type: none"> <li>• What really excites the successful candidate is problem-solving and the opportunity to deliver innovative technology that carries real value for users.</li> <li>• Draw value from collaboration with others, actively seek input from colleagues and value a multidisciplinary team over hierarchy.</li> <li>• Dependable, reliable, a good timekeeper and effective guide/mentor to subordinate staff.</li> <li>• Demonstrates and encourages high standards of honesty, integrity, openness and respect for others.</li> <li>• Helps to create and encourages a positive work culture, in which diverse, individual contributions and perspectives are valued.</li> <li>• Facilitates collaboration between stakeholders who share common objectives.</li> <li>• Plans, schedules and monitors work to meet time and quality targets and in accordance with relevant legislation and procedures.</li> <li>• Rapidly absorbs new technical information and applies it effectively.</li> <li>• Proactive and achievement orientated</li> <li>• Able to work with minimum supervision.</li> <li>• Takes the initiative in identifying and negotiating appropriate development opportunities.</li> <li>• Demonstrates effective communication skills.</li> <li>• Contributes fully to the work of teams.</li> </ul>		(a), (i)

<ul style="list-style-type: none"> <li>Plans, schedules and monitors own work (and that of others, where applicable), competently within limited deadlines and according to relevant legislation and procedures.</li> <li>Understands and uses appropriate methods, tools and applications.</li> <li>Appreciates the wider form of information systems and how own role relates to other roles and to the business of the employer or client. Understands the relevance of own area of responsibility/specialism to the employing organisation.</li> </ul>		
<b>Other</b>		
<ul style="list-style-type: none"> <li>Able to work outside of normal office hours including weekends, evenings and some early mornings.</li> </ul>		

Key to assessment methods; (a) application form, (i) interview, (r) references, (t) ability tests (q) personality questionnaire (g) assessed group work, (p) presentation, (o) others e.g. case studies/visit