Specific Skills List - Software Engineer (Java and C#), Jan 2022

Job Description

Please see separate General Job Description.

Nature of specific projects

Candidate might be involved in one or more of the following product developments or customer projects:

- Secure document and email management systems using advanced cryptography and tightly-controlled user access to implement multi-level document protection and redaction for the Defence and Commercial sectors.
- Development of hardware system interoperability and security products for Defence, Government and Industrial sectors.
- On-going software change and test of a networked system of desktop and bespoke devices for Defence.

Nature of non-specific projects

EEL continually undertake new projects and develop new products. This often involves the leveraging of new technologies and mean that the candidate must be able to:

- Identify the technologies best suited for a particular solution.
- Apply their core engineering and software skills to the understanding of the technology such that they can implement the solution.
- Design and development cross-platform solutions such that alternative and future technologies can be leveraged with the minimum of redevelopment.

Must have skills and abilities

- Skills in two Object-Oriented languages Java and C#.
- Skills in Object-Oriented architecture design, software implementation, software build, software test and system integration.
- PKI Cryptography.
- Experience with the Eclipse IDE. Mars 2 or later.
- Experience with MS Visual Studio 2017 or later.
- Desktop and Server application development knowledge.
- Good Software Configuration Management and Issue Management experience.
- Commercial programming experience, or academic programming experience strongly biased towards these 'Must Have' skills.

Highly desirable skills and abilities

- UML (ideally SysML with Enterprise Architect).
- Java Cryptography Architecture.
- Operating-system-level server virtualization e.g. Docker.
- Enterprise attribute based access control e.g Axiomatics.
- Identity Management e.g. NetIQ.
- RESTful Web services.
- Big Data and Cloud.
- Skills in additional languages e.g. C, C++ Python, or Perl.

Desirable skills and abilities

- Development of embedded C and C++ for embedded Linux using gcc.
- Cryptography: Windows bCrypt/nCrypt libraries or OpenSSL under Linux.
- Experience of implementing software for TCP/IP socket communications.

- ASN.1 (and XML).
- SQL/Database experience
- HTTP.
- Familiarity with the Android OS.
- C# Microsoft technologies - three tier architectures.