Ascend to new heights
in Defence Technology Innovation

EXSEL
ELECTRONICS
CONNECTED. PROTECTED.

www.exsel-group.com

INTRODUCTION

Exsel Group stands as a preeminent force in the realm of independent defence technology solutions. We specialise in delivering supreme engineering expertise, advanced technology systems and comprehensive support services where the imperatives of reliability, safety and protection are non-negotiable.

Tracing our legacy back to 1947 in the United Kingdom, Exsel Group has evolved into a multi-faceted organization with a presence across four strategic UK facilities and various locations across the globe. We cater to an international clientele spanning government agencies, defence sectors and commercial enterprises.

GLOBAL REACH

We are a key operational supplier to UK defence and offer our services globally. This provides our team members with unique opportunities for international travel and engagement. We pride ourselves on delivering exceptional customer service by establishing a robust communication framework with our clients. Our organisational structure is designed to facilitate integrated solutions, managed through proven project management methodologies.

PURPOSE OF ROLE - Software Engineer

The purpose of this role is to be a key part of a systems, software engineering and electronics team working on project delivery, service provision and product development. The role encompasses bidding for, designing, implementing, testing, obtaining customer acceptance and after-sales support of systems for the International Defence and Industrial market sectors. The work is within the context of a multi-disciplinary engineering team delivering complete solutions to the customer.

This role is for Welshpool location & Worcester location

KEY RESPONSIBILITES

Job specific responsibilities

- Pre-Sales - You will assist with Business Development and Tendering to evaluate opportunities for product and project sales and to provide technical material in order to win sales.
- Engineering - You will work with other engineers to deliver projects, services and products to contracted cost, schedule and quality requirements. This role is as part of an engineering team which is responsible for the quality of the technical solutions delivered and is accountable for delivering work packages, such as detailed designs, implementations and test specifications, to agreed schedule and quality targets.
- After Sales - You will work with the Project Manager to provide after-sales service to customers and clients. This role will engage with customers to diagnose technical issues with delivered solutions, and will propose technical solutions to those identified issues.
- Demonstrations - You will work with the Exsel Electronics team to prepare and deliver demonstrations of the company's products and capabilities.

GENERAL

- The job holder will require a valid driving licence.
- Excellent written and verbal communication skills.
- Attention to detail and problem solving.
- Strong organisational skills with the ability to multi-task and work under pressure.
- Ability to be flexible and work outside core hours on occasion.

- Travel to other Exsel group sites and occasional overseas travel may be required.
- Must be able to work in the UK without restrictions & meet UK government security vetting criteria.

HEALTH & SAFETY

- Adhere to all relevant Health and safety procedures and observe safe working practices. All work to be conducted in a safe manner.
- Appropriate Personal Protective Equipment to be used when required.
- All tools and equipment are to be cleared away at the end of a task and work area cleared up before the end of working day.
- All hand tools (if used) are to be maintained in a safe useable condition.
- To advise advanced Technician, team leader or line manager of any Health & Safety issues promptly.

GENERAL COMPETENCIES & SKILLS

- A broad understanding of engineering in general.
- Effective communication and inter-personal skills.
- A good understanding of Software Development methodologies.
- Familiarity with the Product Development Lifecycle.

GENERAL KNOWLEDGE QUALIFICATIONS & EXPERIENCE

- A degree or equivalent in a relevant Engineering, Electronics, Software or Computer Science subject.
- Membership of a Professional Body, such as the BCS or IET.
- Commercial programming, or programming with a very strong academic bias towards the 'Must Have' skills identified in the Specific Skills List.
- Integration of software into systems using medium scale software or electronic subsystems.
- Conceptualisation of innovative ideas and the ability to engineer these into final solutions.
- Working both interactively or independently to achieve team objectives.

SPECIFIC SKILLS LIST- Software Engineer (Java and C#)

Must have skills and abilities

- Two Object-Oriented languages Java and C#.
- Object-Oriented architecture design, software implementation, software build, software test & system integration.
- PKI Cryptography.
- Experience with the Eclipse IDE. Mars 2 or later.
- Experience with MS Visual Studio 2017.
- Desktop and Server application development knowledge.
- Good Software Configuration Management and Issue Management experience.
- Commercial programming experience, or academic programming experience

DESIRABLE SKILLS & 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.
- 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.

SPECIFIC SKILLS LIST – Software Engineer (Linux DDS)

Must have skills and abilities

- Extensive skill in at least one of two Object-Oriented languages Java and C++.
- Linux OS for desktop and server application development experience.
- Scripting *sh, used as part of the solution.
- DDS, preferably with RTI Connext.
- UML Modelling, ideally SysML with Enterprise Architect
- Skills in Object-Oriented architecture design, software implementation, build, test and system integration.
- Experience with recent versions of the Eclipse IDE.
- Good Software Configuration Management and Issue Management experience.
- Commercial programming experience, or academic programming experience.

DESIRABLE SKILLS AND ABILITIES

- PKI Cryptography.
- 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.
- Experience with recent versions of MS Visual Studio
- 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.
- Wireshark.
- ASN.1 (and XML).
- SQL/Database experience
- HTTP.
- Familiarity with the Android OS

SPECIFIC SKILLS LIST Software Engineer (C and C++ Linux)

Must have skills and abilities

- Design and develop OO solutions for implementation in C++ on embedded Linux.
- Design and develop non-OO solutions for implementation in C on embedded Linux.
- Understand Unix/Linux IPC concepts and use under Ubuntu from versions 14.04 to latest.
- Able to configure and manage a Debian based embedded Linux Operating System.

- Be fluent in C/C++ with gcc/g++ and have familiarity with cross-compilation and Make.
- Have experience of implementing software for TCP/IP socket communications.
- Good Software Configuration Management and Issue Management experience.
- Commercial programming experience, or academic programming.

DESIRABLE SKILLS AND ABILITIES

- UML (ideally SysML with Enterprise Architect).
- Cryptography: Key management & Windows bCrypt/nCrypt libraries or OpenSSL under Linux.
- Wireshark.
- XML and ASN.1.
- CANbus knowledge and experience.
- VHDL (VHSIC Hardware Description Language).
- DDS for real-time systems (ideally RTI).
- Software test and Coding Standard compliance experience.
- SQL/Database experience.
- MS Visual Studio 2010 or above.
- Skills in other OO languages e.g. C#.Net or Java.
- Windows desktop or Windows Server application development knowledge.
- Python or Perl.
- Web application development experience.
- Experience with Video and VOIP over Ethernet

EMPLOYEE BENEFITS AND WORKLIFE BALANCE

- Competitive salary.
- Training & development opportunities.
- Apprenticeship programs.
- Company pension.
- Early finish on Fridays.
- Free guest accommodation in various locations (home and aboard).
- Birthday holiday
- Service milestones.
- 25 days holiday, including 3 days Christmas closure, plus Bank Holidays (x8).
- Recruitment Reward Scheme.
- Flexible maternity options after month 9.
- Paid paternity leave.

CANDIDATE PROFILE

Our employees are the driving force behind our achievements. We invest in their professional growth, and in return, they bring innovation, enthusiasm, and a relentless pursuit of excellence to our operations. We seek individuals who are passionate about making a meaningful impact on the world and believe that a role with us can facilitate that ambition.

We encourage applicants who are also former Armed Forces personnel, Reservists and Cadet Force Volunteers, you will be made very welcome amongst our existing staff, who have shared your past experiences, and have been with us for many years. If you have the skills, mindset, and attributes to make a difference in the business then take the next step in your career by becoming a part of the Exsel Group.

For more information see www.exsel-group.com, to apply to join our dynamic team, please forward your CV and covering letter to careers@exsel-group.com