



JOB DESCRIPTION

Post Details:

Post Title:	Software Engineer	Organisational Element:	CQO
Military/Civilian:	CIV	Location:	The Hague, NDL

Organisation context:

This is a position within the NATO Communications and Information Agency (NCIA), an organization of the North Atlantic Treaty Organization (NATO).

To strengthen the Alliance through connecting its forces, the NCIA delivers secure, coherent, cost effective and interoperable communications and information systems in support of consultation, command & control and enabling intelligence, surveillance and reconnaissance capabilities, for NATO, where and when required. It includes IT support to the Alliances' business processes (to include provision of IT shared services) to the NATO HQ, the Command Structure and NATO Agencies.

Organisational Element Statement of Functions:

Under the guidance of the NCIA Chief Quality Officer, The Chief Quality Office (CQO) leads the Agency Quality approach and is the governing authority on the Agency's Quality Management and Risk Management System. The CQO leads the development and assurance of the QMS related processes and procedures, ensures independent verification and validation of project, programme and portfolio deliverables and service changes. The office further provides interoperability assurance and exercise support services, and is responsible for Agency reference environment services and support.

Within CQO the Assurance Solutions branch provides robust, scalable and efficient software, platform and network solutions that enable the assurance of project and product quality, ensuring that all deliverables meet or exceed customer expectations and NATO and industry standards.

Job role description:

Software development engineers are technical experts that develop specific software artefacts in support of solution development. They perform software development, integration and version control. They produce detailed solution designs, manage and evolve engineering environments and maintain software artefacts. They orchestrate and implement software development activities in a DevSecOps manner. In addition they provide 1st, 2nd and 3rd level support for the solutions they develop.

Duties and Responsibilities:

Methods and tools

- Provides advice and guidance to support the adoption of methods and tools and adherence to policies and standards.
- Tailors processes in line with agreed standards and evaluation of methods and tools.
- Reviews and improves usage and application of methods and tools.

Systems design

- Designs system components using appropriate modelling techniques following agreed architectures, design standards, patterns and methodology.
- Identifies and evaluates alternative design options and trade-offs.
- Creates multiple design views to address the concerns of the different stakeholders and to handle functional and non-functional requirements.
- Models, simulates or prototypes the behaviour of proposed system components to enable approval by stakeholders.
- Produces detailed design specifications to form the basis for the construction of systems.
- Reviews, verifies and improves own designs against specifications.

Software design

- Designs complex software applications, components and modules.
- Uses appropriate modelling techniques following agreed software design standards, guidelines, patterns and methodology.
- Creates and communicates multiple design views to balance stakeholders' concerns and to satisfy functional and non-functional requirements.
- Identifies, evaluates and recommends alternative design options and trade-offs.
- Models, simulates or prototypes the behaviour of proposed software to enable approval by stakeholders, and effective construction of the software.
- Verifies software design by constructing and applying appropriate methods.
- Reviews, verifies and improves own designs against specifications.
- Leads reviews of others' designs.

Programming/software development

- Designs, codes, verifies, tests, documents, amends and refactors complex programs/scripts and integration software services.
- Contributes to the selection of the software development methods, tools and techniques.
- Applies agreed standards and tools to achieve well-engineered outcomes.
- Participates in reviews of own work and leads reviews of colleagues' work.
- Leads development activities of other staff.

Data modelling and design

- Investigates enterprise data requirements where there is some complexity and ambiguity.
- Plans own data modelling and design activities, selecting appropriate techniques and the correct level of detail for meeting assigned objectives.
- Provides advice and guidance to others using the data structures and associated components.

Additional duties for this post:

Code Quality and Maintainability

- Maintaining high code quality through rigorous code reviews, automated testing, and refactoring. Ensuring that the codebase remains clean and maintainable over time.

Performance Optimization

- Identifying and addressing performance bottlenecks in the application. This includes optimizing database queries, improving response times, and ensuring efficient resource utilization.

Support and Troubleshooting

- Providing effective 1st, 2nd, and 3rd level support. This involves quickly diagnosing and resolving issues, often under tight deadlines, and ensuring minimal disruption to users.

Security

- Ensuring the application is secure from vulnerabilities. This includes implementing best practices for authentication, authorization, data encryption, and regular security audits.

Education, Experience and Training (essential):

Education:

A minimum requirement of a Bachelor's degree at a nationally recognised/certified University in a related discipline and 2 years post-related experience.

Or exceptionally, the lack of a university degree may be compensated by the demonstration of a candidate's particular abilities or experience that is/are of interest to NCIA, that is, at least 6 years extensive and progressive expertise in duties related to the function of the post.

Experience:

- Minimum of 2 years of proven experience with C#, .NET Core, .NET, Entity Framework Code First, Entity Framework Migrations
- Ability to work independently and as part of a team.
- Attention to detail.
- Ability to collaborate effectively with team members.
- Passion for software and improving existing skills.
- Familiar with Modular Monolith and service-oriented architectures
- Familiar with Event driven architecture
- Minimum of 2 years of proven experience with writing queries in Microsoft T-SQL
- Minimum of 2 years of proven experience with Unit Testing
- Minimum of 2 years of proven experience with and understanding of Design Patterns and Clean Code
- Experience with Azure DevOps, CI/CD
- Ability to communicate with clarity, coherence, conciseness and engagement, both orally and in writing

Education, Experience and Training (desirable):

Experience:

- Minimum of 2 years of proven experience with Blazor, or alternatively ASP.NET MVC, Vue, React or jQuery
- Minimum of 5 years of proven experience with HTML, CSS, JavaScript
- Minimum of 5 years of proven experience with REST APIs and API Design
- Familiar with Modular Monolith and service-oriented architectures
- Familiar with Event driven architecture
- Familiar with Kubernetes and Docker

Behavioural competencies:

- *Relating and Networking* - Easily establishes good relationships with customers and staff; relates well to people at all levels; builds wide and effective networks of contacts; uses humour appropriately to bring warmth to relationships with others.
- *Delivering Results and Meeting Customer Expectations* - Focuses on customer needs and satisfaction; sets high standards for quality and quantity; monitors and maintains quality and productivity; works in a systematic, methodical and orderly way; consistently achieves project goals.
- *Adapting and Responding to Change* - Adapts to changing circumstances; tolerates ambiguity; accepts new ideas and change initiatives; adapts interpersonal style to suit different people or situations; shows an interest in new experiences.

Language:

A thorough knowledge of one of the two NATO languages, both written and spoken, is essential and some knowledge of the other is desirable.

NOTE: Most of the work of the NCIA is conducted in the English language.