IAEA

Job Description Print Report

Position Review

Position Number	149606	Position Type	CFE/JPO	Subject to Radiation	No	Subject to GD	No
Hyperion Position Number	R0240	Fund Type	EBR	Parent Position	007939|Team Leader (SGIS-BAT)|8		
Organization	SGIS-Business Analysis Team	FTE	1	CCOG 1	1A05		
Grade	P4	Duty Station	Vienna, Austria	CCOG 2			
Classified Grade		Position Title	Senior Data Engineer (CFE SGIS)	Proposed New Title			
Master Version		Master Status		Approval Date			
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Job Description Review

Organization Settings

The Department of Safeguards (SG) is the organizational hub for the implementation of IAEA safeguards. The IAEA implements nuclear verification activities for over 180 States in accordance with their safeguards agreements. The main objective of the Department is to maintain and further develop an effective and efficient verification system in order to draw independent, impartial and timely safeguards conclusions, thus providing credible assurances to the international community that States are in compliance with their safeguards obligations. Safeguards activities are undertaken within a dynamic and technically complex environment including advanced nuclear fuel cycle facilities and complemented by the political and cultural diversity of the countries.

The Department of Safeguards consists of six Divisions: three Operations Divisions for the implementation of verification activities around the world; three Technical Divisions (Division of Concepts and Planning, Division of Information Management, and Division of Technical and Scientific Services); and three Offices (the Office for Verification in Iran, the Office of Safeguards Analytical Services and the Office of Information and Communication Services).

Within the Office of the Deputy Director General, Head of the Department of Safeguards, the Section for Safeguards Programme Coordination serves as the principal advisory body in support of the entire management of the Department including formulation and execution of departmental management policies and procedures. The Section provides internal coordination and support in the areas of programme and budget, human resources, performance monitoring, effectiveness evaluation, communication, reporting and project support.

Within the Department of Safeguards, the Office of Information and Communication Systems (SGIS) is the centre of competence for the specification, development and maintenance of Information and Communication Technology (ICT) systems and for the management of all ICT infrastructure and services to support safeguards. In partnership with other organizational entities, SGIS is responsible for planning and implementing an ICT strategy as well as enforcing ICT standards.

The Project Section provides ICT services to Safeguards Divisions and Member States. The Section serves multiple roles. It provides business analysis and information architecture services including integration of solutions developed in the IAEA and third-party solutions into the IT environment. It undertakes quality assurance and testing for all delivered products and provides project management services to the Division including contract management.

Main Purpose

Reporting to the Team Leader of the Business Analysis Team, the Senior Data Engineer carries out activities related to the planning, design, development and deployment of solutions aimed at integrating information and structured data feeds from internal and external sources into analytic information systems needed by the Department of Safeguards. The Senior Data Engineer designs data / information processing pipelines and services, as well as the development and maintenance of large scale data integration systems for the Department of Safeguards.

Role

The Senior Data Engineer is: (1) a substantive specialist, performing business analysis; (2) an adviser to the Team Leader, Section Head and other senior managers in the Department on business process, risk, change and system implementation issues; improving business processes via integration, (3) a Data Engineer, creating and maintaining data processing pipelines and the integrated information repositories needed to support information analysis in Safeguards.

Partnership

The Senior Data Engineer works with business analysts and business users to understand requirements, develop detailed specifications, and ensure the development of enterprise information processing flows into multi-purpose data integration systems supporting software application teams, data scientists, and information analysts across the organization. The Senior Data Engineer works with the Safeguards and non-Safeguards users and product, and infrastructure teams to test, promote and deploy developed solutions.

Functions / Key results Expected

With guidance and support provided by the Team Leader, and in close collaboration with the relevant stakeholders, the Information Architect is expected to:

Implement new information systems, or enhancements of existing systems, with a focus on the development of new capabilities in collaborative analysis and integrated analysis.
Develop and enhance back-end data integration pipelines from different data sources.
Develop and enhance large-scale high-performance data platform.
Develop and enhance front-end visualizations and interfaces for exploration, discovery, and structured analysis.
Carry out business analysis activities.
Work to improve business processes via integration, or minimize the impact of integration on those processes.
Test the interoperability of software integrations with implementation teams and vendors to ensure the stability and reliability of data flow and consumer access to data.
Propose, develop and conduct proof of concepts for innovative software tools, technologies, and application frameworks. Maintain deep levels of involvement in the implementation process.
Contribute to change management and communication efforts required to successfully adopt new business processes and/or technical solutions, by creating communication and user training plans in the course of executing projects.
Collaborate with other staff in the Division in the implementation of policies and standards for the SG-wide information, project and portfolio management.

Generic JD Remarks

Competencies		
Core Competencies		
Competency	Occupational Role	Definition

Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen to and understand the perspectives of others and proposes solutions.
Achieving Results	Individual Contributor	Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Division?s programme. Evaluates his/her results realistically, drawing conclusions from lessons learned.
Teamwork	Individual Contributor	Actively contributes to achieving team results. Supports team decisions.
Planning and Organizing	Individual Contributor	Plans and organizes his/her own work in support of achieving the team or Section?s priorities. Takes into account potential changes and proposes contingency plans.

Functional Competencies		
Competency	Occupational Role	Definition
Client orientation	Specialist	Helps clients to analyse their needs. Seeks to understand service needs from the client?s perspective and ensure that the client?s standards are met.
Commitment to continuous process improvement	Specialist	Plans and executes activities in the context of quality and risk management and identifies opportunities for process, system and structural improvement, as well as improving current practices. Analyses processes and procedures, and proposes improvements.
Technical/scientific credibility	Specialist	Ensures that work is in compliance with internationally accepted professional standards and scientific methods. Provides scientifically/technically accepted information that is credible and reliable.

Expertise		
Expertise	Description	Asset
Information Management|Data Engineering	In-depth knowledge in information/data engineering principles, in organizing functionality and content. Firm understanding of user-centered design processes.	Y
Information Technology|Business System Analysis	Excellent experience with tools and technologies used in business analysis.	Y
Information Technology|HTML/Web Tools and Technologies	In-depth knowledge of web tools and technologies that support moving from research to strategy and design to implementation.	Y
Information Technology|Technical Writing	Excellent skills in producing well-structured technical and design documents.	Y
Information Technology|Web Design	In-depth knowledge of information dissemination and presentation techniques. Demonstrated experience using web analytics data to support design decisions.	Y
Information Technology|Web Development	Good knowledge of web-based development.	Y

Position Specific FC	Occupational Role	Definition

Position Specific Expertise	Description	Asset
Information Technology|Business System Analysis	Expert knowledge of integrated and link analysis platforms.	N
Information Technology|Data Analysis	Expertise in big data analysis techniques and ELK Stack.	N
Information Technology|Database Development	Expertise with SQL Server, document-oriented databases such as MongoDB or MarkLogic, graph databases such as Allegrograph or Neo4j, and associated query/programming languages and frameworks such as SQL, SPARQL, Gremlin, MapReduce or Cypher.	N

Languages	
Languages	**Asset Languages**
English	Arabic
	Chinese
	French
	Russian
	Spanish

Qualification	
Qualification Title	**Description**
Master's Degree	Masters degree in fields related to interaction design, information architecture, information systems, computer science or related engineering field.

Experience

Bachelors degree in those fields with at least 10 years of professional experience with complex data integration platforms supporting big data analysis.
Minimum of seven years working experience as Information Architect, User Experience Architect or Interaction Designer.
Sound experience in gathering/eliciting business requirements, determining business objectives.
Sound experience in organizing and presenting information, in navigation and searching systems, particularly in the context of the web.
Practical experience with design software, web coding, and SharePoint 2013 technologies.
Practical experience in user-centered design.
Strong knowledge of information security.

Job Description Remarks

This is a CFE position funded by the US SP.

Requisition

Contract Type	Fixed Term - CFEA	Expected Start Date	01-MAR-19	Duration	24	Mobility	No
Fully Competitive Recruitment	No	Travel	Yes, 10 % of the Time				

Approval History

Seq.	Name	Category		Status	Date