



**Food and Agriculture Organization
of the United Nations**

CALL FOR EXPRESSIONS OF INTEREST

Developer: Data Engineer (Consultant)

Vacancy No. IRC4075

Deadline for Applications: 8 May 2017

Duty station: Rome, Italy

Expressions of Interest for the Evaluation

The FAO Information Technology Division (CIO) is seeking Expressions of Interest (EOIs) from qualified data engineers.

Suitable candidates will have designed and built robust, reliable and scalable data management and dissemination solutions.

Tasks and responsibilities:

Under the overall direction of the Senior Software Development Officer, and the day to day management of the software development technical team leader, they will perform the following duties with respect to information systems:

- Participate in an Agile software development team building high quality and effective software products that deliver real business in the shortest time.
- Design and develop reliable, resilient, scalable and performant data services and processes in close collaboration with frontend, backend and DevOps developers and Information and Systems Architects.
- Orchestrate, compose, configure and integrate data services (including cloud based).
- Design, document and publish data service interfaces API.
- Design and execute functional, performance and security testing and verification.
- Program, test, debug and maintain services; also address systems performance issues and crashes as per operations requests when necessary.
- Participate in defining, implementing and mainstreaming information and data models, policy and best practices.
- Ensure service consistency, coherency and compliance with appropriate organizational standards in close collaboration with quality assurance (QA) and information and system architecture.
- Other related duties as necessary.

Expected Outputs:

- Data services and processes
- Data services test and quality assurance reports.
- Data services usage analytics, audit and analysis.
- Data services documentation.
- Defined, adopted and continuously improved body of knowledge and best practices on information and data management.

Candidates should meet the following requirements:

Minimum Requirements

- At least 2 years of experience developing data services for software products.
- Demonstrable ability to design and implement data services.
- Ability to communicate effectively.
- Experience working in software development teams.
- University degree in computer science or closely related discipline.
- Working knowledge of English

Competencies

- Results Focus
- Teamwork
- Communication
- Building Effective Relationships
- Knowledge Sharing and Continuous Improvement

Technical/Functional Skills

- Data design, modelling, processing, publication and optimization.
- Data service programming techniques, languages, frameworks and cloud services specifically including micro-services, wso2, Java, R, Python and JavaScript.
- Managing a complex data environment, including classified data.
- Connecting and managing data flows from information systems, data warehouses and external sources.
- Strong data analytical skills - data organization, modelling and analysis.
- Strong attention to detail and accuracy.

Selection criteria

- Length of experience in developing data services
- Quality of data service developed.
- Depth of knowledge and skill in data management programming and modelling techniques, languages and frameworks e.g.
 - Extract, Transform, Load (ETL) – Talend, GCP Dataflow, wso2
 - Data modelling - R
 - Data Query - SQL, NoSQL, SPRQL, JSONpath, XPath and XQuery
 - Online Analytical Processing (OLAP) – Pentaho Mondrian
 - Master Data Management (MDM) - EBX5.
 - Databases including MySQL, PostgreSQL, MongoDB, DynamoDB, Bigtable and Firebase.
 - Semantic Web, Linked Open Data and Triplestores
 - Data caching and optimization.
- Familiarity with data and metadata formats, protocols and standards e.g.
 - JSON, XML
 - Statistical Data and Metadata eXchange (SDMX)
 - Data Documentation Initiative (DDI)
 - Geographic information Metadata (ISO 19115)
 - Open GIS Consortium (OGC)
 - Functional Requirements for Bibliographic Records (FRBR)
 - Metadata Object Description Schema (MODS)
 - Dublin Core
 - Global Open Data for Agriculture and Nutrition (GODAN),
 - International Aid Transparency Initiative (IATI)
 - XMP, IPTC and EXIF
- Ability to clearly communicate.
- Ability work in an agile software development team.

Additional Information

FAO seeks gender, geographical and linguistic diversity in its staff and international consultants in order to best serve FAO Members in all regions.

All candidates should adhere to FAO values of Commitment to FAO, Respect for All and Integrity and Transparency.

How to apply

All applications are to be made through FAO's [iRecruitment](#) system. Click on the link below to access [iRecruitment](#), complete your online profile and apply for this Call for Expression of Interest.

<http://www.fao.org/employment/irecruitment-access/en/>

In order for your application to be properly evaluated, please ensure that all sections of your iRecruitment account are completed. Incomplete applications will not be evaluated.

If you need help, or have queries, please contact: iRecruitment@fao.org