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## Position Summary

### Data Engineer – FHIR Analyst

#### Purpose

Develop and implement solutions to acquire and prepare data for analytical and operational uses to support diverse stakeholder needs throughout the CIBMTR. Implement automation to ingest, and integrate data from real world data sources – Electronic Health Records, Lab Systems, other hospital systems, including third party vendor systems.

#### Primary Functions

- Collaborate with data subject matter experts and technical professionals as a key member of multidisciplinary team or in support of automating data acquisition from real world healthcare data sources using HL7 FHIR (Faster Healthcare Interoperability Resources).
- Work with team or independently design, document and test FHIR Implementation Guides (IG's) and FHIR extensions that will enable external partners—medical centers and vendors—to structure data submissions in standard, repeatable way.
- Work with partners to implement FHIR IG's and extensions by providing implementation guidance and troubleshooting, as appropriate.
- Collaborate with submitting centers or vendors to resolve FHIR submission issues.
- Work with architects, data engineers and database analysts to define and implement data pipelines to parse, and accept data received from different center submissions, vendor applications & build the data modeling/mapping into CIBMTR and Common Data Models within CIBMTR.
- Work alongside subject matter experts to acquire deep understanding of CIBMTR data domains and data use to support data analysis and use.
- Collaborate with technical resources to perform data profiling, root cause analysis and complete remediation of data quality issues.
- Specify and develop logging and reporting for error notification
- Prepare and maintain system documentation for your work that aligns with internal SOP's, best practice and regulatory compliance.
- Provides technical support for application software.



### **Knowledge – Skills – Abilities**

Knowledge of computers, electronics, digital media, databases, applications, software development, risk management, and information security. The candidate will have the following qualifications:

- 5 years of experience with EDI/FHIR/HL7 platforms & technologies and knowledge of Healthcare Industry standards and requirements.
- Strong data analysis and profiling skills along with uncompromising commitment to preserve data quality and integrity.
- Strong knowledge of data modeling principals and data standards.
- Knowledge in HL7 standard data transfer formats and FHIR® formatted XML and JSON objects and need to know how to read and write functionality works based on the GET/PUT/POST/DELETE functions used in web-based APIs.
- Understanding of healthcare data-controlled vocabularies and data interoperability standards, including—LOINC and SNOMED, RxNorm, CPT, and FHIR CodeSystems and ValueSets
- Strong knowledge of SQL
- Knowledge of AGILE Scrum
- Knowledge of data models for Electronic Health Record (EHR) Systems is preferred.
- Experience in systems analysis, troubleshooting, problem solving, and listening skills.
- Knowledge of C#, .NET or Java is preferred
- Experience using Git and GitHub for source code control
- Experience with HL7 FHIR Implementation Guide tooling including FHIR Shorthand (FSH) and Sushi
- Experience with HL7 FHIR validation tooling

### **Organizational Structure**

Building: Clinical Cancer Center

Department: Medicine

Division: CIBMTR

Reports to (Title): IT Director

Direct Reports (Titles): NA

Collaborates with (Titles): CIT managers and staff, CIBMTR Scientific Directors, work team members deployed at our affiliate, National Marrow Donor Program Be The Match, as well as center based Clinical Research Professionals and IT professionals, vendors and any other roles as defined.

### **Specifications**

*Appropriate education and/or experience may be substituted on equivalent basis*

Minimum Required Education: Bachelor's Degree

Minimum Required Experience: 3 years

Preferred Education: BS in Computer Science, IT or equivalent and/or equivalent experience. MS in informatics preferred.

Preferred Experience: 5 years

Field: Computer Science, Technical Discipline

Certification: None



### **Classification**

Grade Name	18
Full-Time Equivalent	1.0
FLSA Status	Exempt
FLSA Test	Computer Professional
Workweek	Full-time role with expectations for coverage during core business hours and flexibility required as necessary to accommodate business needs.
Job ID	300
Job Name	
Position Category	Information Services

### **Job Scope**

*Complexity* – requires sound judgment; leads difficult and involved planning of initiatives

*Impact* – errors may result in extensive damage; constant attention to accuracy required

*Autonomy* – individual responsible for completion of work; seeks supervision as appropriate

*Communication* – involved in frequent conflict resolution; communicates with senior leaders

*Responsibility* – influences others

*Confidentiality* – confidential information used frequently to make decisions

*Leadership* – prioritizes work of others or may provide supervision

### **Physical Requirements**

Work requires occasionally lifting moderate weight materials, standing, or walking continuously.

### **Risk Potential**

Infrequent exposure to hazards such as dust, fumes, or extreme temperatures, airborne or blood borne pathogens, extreme temperatures, or allergens.

### **Sensory Acuity**

Ability to detect and translate speech or other communication required. May occasionally require the ability to distinguish colors and perceive relative distances between objects.

### **Work Environment**

Occasional exposure to dust, noise, temperature changes, or contact with water or other liquids. Work is performed in an environmentally controlled environment.

### **Performance Dimensions**

#### **Collegiality**

Exhibit confidentiality, honesty, and actions that build trust and strengthen relationships. Listen to others and effectively communicate in a clear and concise manner through written and verbal communication.

Demonstrate respect and commitment to the values of diversity and equity; seek out and incorporate diverse perspectives into decision making.



### **Excellence and Creativity**

Exhibit initiative and ingenuity by taking ownership of tasks to proactively improve services, avoid problems, or develop opportunities. Generate novel and valuable ideas to impact institutional missions.

Identify and implement new methods to increase efficiency and quality.

### **Education and Development**

Displays an ongoing commitment to continuous learning and self-improvement in one's area of responsibility. Actively seek out mentorship and learning opportunities that can be applied to current and future work activities. Develop and maintain professional affiliations. Participate in design, development, and/or evaluation of instructional materials, methods, courses, or programs.

### **Agility and Judgment**

Remain flexible and versatile in rapidly changing environment and adapt quickly to changing circumstances. Change behavioral style or method of approach when necessary to achieve a goal. Make timely and sound decisions based on analysis of information, experience, and logic. Show reliability and accountability in the successful completion of all work.

### **Stewardship and Institutional Citizenship**

Support transformational change to achieve institutional vision and strategies. Be an active and thoughtful participant in institutional initiatives, meetings, and committee work. Conserve resources and use in an efficient and cost effective manner across all institutional missions. Look for ways to improve and promote quality within area of influence.

### **Disclaimers**

#### **Background Check**

Employment in this position may be contingent upon successfully completing a background and criminal history check, caregiver background check in accordance with the Wisconsin Caregiver Background Check Law, physical examination, and / or driving record check.

#### **Equal Opportunity Employer**

The Medical College of Wisconsin is an affirmative action / equal opportunity employer and does not discriminate in hiring or employment on the basis of age, sex, race, color, religion, national origin, veteran status, disability, or sexual orientation.

#### **Diversity and Inclusion**

The Medical College of Wisconsin defines diversity as a commitment to recognizing and appreciating the variety of individual differences in an environment that promotes and celebrates individual and collective achievement. The diversity of MCW continues to be an important source of innovative ideas and creative accomplishments.

#### **Confidentiality**

Employees that have access to MCW, affiliate, subsidiary, or student data or Protected Health Information (PI), or research protected information are obligated to protect the confidentiality and proper use and access of this information in order to prevent loss, misuse, unauthorized access, unnecessary identification, or security breaches.

**Completeness**

This job description is not an employment contract and the Medical College of Wisconsin may modify this document at any time. This document is intended to indicate the types of tasks and levels of skill, effort, and responsibility required by positions assigned this title. This information shall not be construed as a declaration of the specific duties and responsibilities of any particular position. It is not intended to limit or modify the right of any supervisor to assign, direct, and control the work of direct reports. The functions described are not to be interpreted as exclusive or all-inclusive of the various functions performed.

**Effective Date:**