

UW HEALTH JOB DESCRIPTION

Data Management Architect

Job Code: 340018	FLSA Status: Exempt	Mgt. Approval: J. Long	Date: February 2022
Department: Enterprise Analytics		HR Approval: N. Lazaro	Date: February 2022

JOB SUMMARY

The Data Management Architect is constantly developing and maturing the overall UW Health data and analytics ecosystem. The Data Management Architect leverages a variety data management methodologies and technologies to construct a robust analytics ecosystem that enables the delivery of actionable, data-driven insights that answer healthcare's most important questions. The Data Management Architect leads the evolution of a modern data and analytics platform utilizing cloud-based technologies such as Azure and Databricks. The Data Management Architect advances the disciplines of analytics architecture, data engineering, DataOps engineering and information delivery.

The Data Management Architect is a forward-thinking technical leader within UW Health IS and across the UW Health system. The Data Management Architect is conscious of advancing the data management maturity of UW Health and defining and demonstrating how data management supports the organization's overall mission and vision. The Data Management Architect leads a strong community of architects and principals, data and DataOps engineers, data scientists, machine learning engineers, analytic consultants and other colleagues via training, mentoring, and quality assurance. The Data Management Architect represents UW Health in regional and national workgroups, committees and professional organizations, including the publication of articles in leading journals.

The Data Management Architect is accountable for creating a sound, comprehensive data and analytics architecture and technology roadmap for UW Health. The Data Management Architect works with other leaders to set the strategic, technical priorities and leads initiatives that execute the technical architecture and roadmap for data management.

MAJOR RESPONSIBILITIES

Develop and Mature the Analytics Ecosystem

- Develop and design the overall data management, delivery, and interoperability architecture for a complex academic health system, working in close partnership with other UW Health architects and colleagues
- Increase the data management maturity of UW Health. Define and lead strategic initiatives. Drive best practices and continuous improvement in domains including data engineering, data operations engineering, business intelligence and visualization, and data sharing.
- Effectively lead, in partnership with other UW Health colleagues, to promote, deliver, and adopt mature and robust solutions and capabilities for data segmentation, data security, privacy, compliance, monitoring, and auditing.
- Lead the development of the analytics roadmap including capabilities, products and solutions aligned with emerging industry trends and UW Health strategies
- Lead the definition of the analytics product portfolio, and support the team in the adoption of product management best practices
- Plan and execute original data management solutions in a problem space that is unique and critical to the organization.
- Prescribe and optimize the use of analytics platforms, effectively integrating cloud-native and third-party systems, services, and capabilities especially within Azure and Databricks
- Design, develop and deliver data pipelines that deliver curated, value-added data assets such as data marts and other purpose-built data stores. Ensure data pipelines are optimized, highly reliable, and contain low technical debt.
- Prescribe the management and automation of end-to-end the provisioning of environments, data on data platforms, deployment, testing, release, security and monitoring processes.
- Develop and grow a community of colleagues across UW Health, SMPH and our partners to build increased competency in analytics architecture, data engineering and DataOps engineering
- Use knowledge of healthcare industry, market environment, and clinical and business workflows and activities, to inform solution design and development to execute original solutions in a problem space that is unique and critical to the organization
- Independently (with minimal oversight) develop and maintain trusted advisor relationships with business, clinical, and operations leaders at the senior leadership level and with external partners, that include guidance for optimizing use of analytic capabilities and deliverables, and prioritization based on strategic vision.
- Participate in on-call rotations as needed

Improve Processes and Standards

- Define, articulate, update the guiding principles that drive the technical standards for the organization. Endorse technical standards and ensure that technical standards are aligned with technical vision, architecture, and roadmap.
- Lead improvement in agility within UW Health IS and across the organization
- Lead improvement initiatives for UW Health IS and across the UW Health system.
- Lead the development and delivery of training for analytics architecture, data engineering and DataOps engineering.

Effective Team Member

- Collaborate with IS leader colleagues to drive continuous improvement within UW Health IS.
- Consistently demonstrate a very high level of teamwork, partnership and collaboration.

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- Consistently demonstrate a very high level of personal accountability and lead by example in following policies and procedures.
- Actively mentor and teach other colleagues (formally and informally) and act as an institutional-level role model and represent the organization for data management.

Leadership

- Serve, where applicable, as the business relationship manager, delivery team leader, product manager or owner, or program leader for assigned areas and initiatives.
- Serve as a system-wide thought leader and advocate for data literacy and data governance.
- Be a role model for successful cross-functional team leadership and leading without direct authority
- Hold team, EA and IS responsibilities and lead strategic initiatives

Technical Leadership

- Define the analytics architecture and roadmap within the UW Health analytics ecosystem to deliver strategic value for the organization.
- Provide strategic technical direction and the technical priorities for the staff and teams that execute data management projects.
- Evaluate emerging technology and technology trends and create plans to ensure that the organization is well-positioned with regards to future technology while maximizing the value of current technology
- Continuously curate and optimize the analytics asset repository including leading retirement projects of out-of-date assets, exploring new analytics technologies etc. to achieve efficiency and increase value delivered.

ALL DUTIES AND REQUIREMENTS MUST BE PERFORMED CONSISTENT WITH THE UW HEALTH PERFORMANCE STANDARDS.

JOB REQUIREMENTS

Education	Minimum	Bachelor's Degree in Healthcare, Information Systems, Computer Science, Engineering, Business, Data Science or related field. (Four years relevant work experience may be considered in lieu of educational requirement)
	Preferred	Master's degree in Healthcare, Information Systems, Computer Science, Engineering, Business, Data Science or related field.
Work Experience	Minimum	<ul style="list-style-type: none"> • Demonstrated success of setting the strategy for and maturing an architecture framework for a complex integrated analytics environment • Demonstrated success delivering multiple, significant initiatives in the areas of analytics architecture, data engineering or DataOps engineering including design, implementation and on-going operations • Demonstrated technical leadership in healthcare analytics industry • Demonstrated success implementing new processes/techniques to advance analytics • Demonstrated success leading and coordinating cross-functional delivery teams to achieve desired outcomes at the organization level • Demonstrated success teaching and mentoring
	Preferred	<ul style="list-style-type: none"> • Two (2) years of experience in a technical leadership role • Ten (10) years of relevant analytics experience which includes the disciplines of analytics architecture, data engineering, DataOps engineering, and data warehousing • Five (5) years of experience with Epic Cogito technologies (e.g. Epic Clarity, Epic Caboodle) or other data warehousing and data transformation technologies (e.g. Azure, Databricks, Informatica, etc). • Three (3) years of experience in healthcare (provider or payer) • Project management experience, including agile methods
Licenses & Certifications	Minimum	<ul style="list-style-type: none"> • None
	Preferred	<ul style="list-style-type: none"> • Epic certifications in Cogito or other subject area • Relevant certifications related to data warehousing concepts and technologies, ETL development, or other pertinent areas of analytics. • Relevant certifications to agile methodologies, ITIL, process improvement, lean management, or other related activities. • Relevant certifications related to program and project management
Required Skills, Knowledge, and Abilities		<u>Information Services (IS) Core Competencies:</u> Advanced proficiency in the following: <ul style="list-style-type: none"> • leadership competencies including leads with integrity, maintains strategic orientation, demonstrates business & financial acumen, champions innovation, manages execution and leads & develops people. • technical leadership of applicable products or platforms • leading without direct authority • leading highly empowered, self-directed teams including cross-functional teams

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- communication
- being an effective team member
- critical thinking
- applying lean management tools
- applying agile methodologies
- mentoring and teaching

Position Specific Competencies:

Advanced proficiency in Analytics Architecture.

Advanced proficiency in at least 2 and intermediate proficiency in at least 4 competencies such as:

- Analytical Solutions Development
- Analytics Architecture
- Big Data
- Data Modeling
- Data Governance
- Data Quality - Analysis & Improvement
- Data Stewardship & Curation
- Data to Information to Action
- Data Warehouse Administration
- Enterprise Automation
- Enterprise Security, Privacy, & Info Sharing
- ETL
- Metadata
- Project Management
- Software Development Lifecycle (SDLC)
- Strategic Technology Planning
- Strategic Thinking
- Technology Awareness
- Technological Leadership
- Testing / Software Testing / QA
- Web Services

Other Required Skills, Knowledge, Abilities:

Delivering Analytic and Data Management Solutions:

- Multiple successful large analytic and/or data management initiatives, with significant role in development and implementation.
- Demonstrates professional maturity surrounding data access, data security, data sensitivity and data confidentiality

PHYSICAL REQUIREMENTS

Indicate the appropriate physical requirements of this job in the course of a shift. *Note: reasonable accommodations may be made available for individuals with disabilities to perform the essential functions of this position.*

Physical Demand Level		Occasional Up to 33% of the time	Frequent 34%-66% of the time	Constant 67%-100% of the time
X	Sedentary: Ability to lift up to 10 pounds maximum and occasionally lifting and/or carrying such articles as docket, ledgers and small tools. Although a sedentary job is defined as one, which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.	Up to 10#	Negligible	Negligible
	Light: Ability to lift up to 10 pounds maximum and occasionally lifting and/or carrying such articles as docket, ledgers and small tools. Although a sedentary job is defined as one, which involves sitting, a certain amount of walking and	Up to 20#	Up to 10# or requires significant walking or standing, or	Negligible or constant push/pull of items of negligible weight

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	standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.		requires pushing/pulling of arm/leg controls	
	Medium: Ability to lift up to 50 pounds maximum with frequent lifting/and or carrying objects weighing up to 25 pounds.	20-50#	10-25#	Negligible-10#
	Heavy: Ability to lift up to 100 pounds maximum with frequent lifting and/or carrying objects weighing up to 50 pounds.	50-100#	25-50#	10-20#
	Very Heavy: Ability to lift over 100 pounds with frequent lifting and/or carrying objects weighing over 50 pounds.	Over 100#	Over 50#	Over 20#
List any other physical requirements or bona fide occupational qualifications:				