

UW HEALTH JOB DESCRIPTION

Data Engineer I

Job Code: 340011

FLSA Status: Exempt

Mgt. Approval: J. Long

Date: February 2022

Department: Enterprise Analytics

HR Approval: N. Lazaro

Date: February 2022

JOB SUMMARY

The Data Engineer I sits at the intersection of software engineering and data warehousing. The Data Engineer I is responsible for the design, development and delivery of data pipelines and value-added data assets across the UW Health data ecosystem, leveraging a variety of data engineering and data warehousing methodologies and disciplines. With direction and occasional assistance, the Data Engineer I primarily designs, builds and maintains these data assets utilizing cloud-based technologies such as Azure and Databricks. Emphasizing agility, partnership, and cross-functional teamwork, this includes executing initiatives throughout the product lifecycle. The Data Engineer I works closely with data scientists, machine learning engineers, analytic consultants, and other colleagues to build or enhance robust systems with embedded artificial intelligence and data science.

The individual will automate and perform data management processes across the data ecosystem which includes:

- Ingestion of data from a multitude of source systems
- Contributing to modeled and analytic data assets such as data marts that facilitate delivery of an analytic solution and/or the release of data to external entities
- Pursuing the automation of data management processes whenever possible to improve performance, reliability, and quality
- Overseeing aspects of repetitive data management activities (including obtaining, moving, copying, validating, manipulating, and merging data) from a variety of data sources
- Delivering datasets to both internal and external customers of UW Health
- Supporting manual processes where automation cannot be achieved

Data Engineer I is a valued contributor within UW Health IS. The Data Engineer I performs prescriptive work in a high-quality fashion while building their data engineering and other competencies. The Data Engineer I may work independently on prescriptive tasks or with assistance on more complex tasks from other team members.

The Data Engineer I works closely with employees and leaders across UW Health, the UW School of Medicine and Public Health, and our partners.

MAJOR RESPONSIBILITIES

Deliver Analytic Solutions

- Ensure successful delivery to support strategic planning and initiatives, improve organizational performance, and advance progress towards UW Health goals.
 - Leverage knowledge and skill with a variety of data engineering, DataOps, and data warehousing methodologies, techniques, tools, and platforms to transform large quantities of data from multiple sources.
 - Design, create, test, deploy and maintain 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.
 - Utilize cloud-native and third-party capabilities especially within Azure and Databricks
 - Design, develop, implement and enhance solutions that automate current manual processes to the fullest extent possible
 - Identify and develop new ways of expanding and leveraging the existing processes to provide additional business value such as improvements in performance, run time and improved data quality
 - Perform process steps where automation cannot be achieved
 - Monitor and support automated processes and troubleshoot or escalate in the event they fail
 - Oversee the submission and receipt of datasets with external entities
 - Use knowledge of healthcare industry, market environment, and clinical and business workflows and activities, to inform solution design and development to execute high-quality solutions to clear problems in an established problem space.
 - Adhere to the Software Development Life Cycle framework and governance processes including, but not limited to: participating in planning sessions, collecting and documenting requirements, applying design patterns, define transformations, aggregations, and other data manipulations, developing data pipelines, creating documentation, developing test plans, performing unit testing, participating in peer review sessions, migrating deliverables to production, participating in production support.
 - Independently (with minimal oversight) develop and maintain trusted advisor relationships with business, clinical, and operations leaders that include guidance for optimizing use of analytic capabilities and deliverables.
 - Ensure all deliverables include the necessary controls and compliance standards (such as HIPAA) regarding data access, data security, data sensitivity and data confidentiality
 - Participate in an on-call rotation.

Improve Processes and Standards

UW HEALTH JOB DESCRIPTION

- Participate in improvement teams and projects within Enterprise Analytics and IS.
- Contribute to the development and delivery of training relevant to area of expertise.

Effective Team Member

- Collaborate with colleagues to drive continuous improvement within UW Health IS.
- Consistently demonstrate a very high level of teamwork, partnership and collaboration.
- Consistently demonstrate a very high level of personal accountability and lead by example in following policies and procedures.

Leadership

- Hold team-level responsibilities and may lead the team for small to medium-scale projects

Technical Leadership

- Develop increasing proficiency within data engineering and additional analytic competencies with a concentration on cloud-based and Epic Cogito technologies. Successfully completes ongoing technical training.

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"> • None
	Preferred	<ul style="list-style-type: none"> • One (1) year of experience with cloud-based data warehousing and data transformation technologies (e.g. Azure, AWS, Databricks, Informatica, etc) or Epic Cogito technologies (e.g. Epic Clarity, Epic Caboodle)
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.
Required Skills, Knowledge, and Abilities		<p><u>Information Services (IS) Core Competencies:</u> Emerging proficiency in the following:</p> <ul style="list-style-type: none"> • communication • effective team member • critical thinking • mentoring and teaching • technical leadership of applicable products or platforms • leading without direct authority • leading highly empowered, self-directed teams including cross-functional teams • applying lean management tools • applying agile methodologies <p><u>Position Specific Competencies:</u> Emerging proficiency in at least 3 competencies such as:</p> <ul style="list-style-type: none"> • Analytics Architecture • Big Data • Data Modeling • Data Quality - Analysis & Improvement • Data Querying • Data Stewardship & Curation • Data to Information to Action • Enterprise Automation

UW HEALTH JOB DESCRIPTION

	<ul style="list-style-type: none"> Enterprise Security, Privacy, & Info Sharing ETL Metadata Software Development Lifecycle (SDLC) Testing / Software Testing / QA Web Services <p><u>Other Required Skills, Knowledge, Abilities:</u></p> <p>Delivering Analytics Solutions</p> <ul style="list-style-type: none"> Demonstrated ability to initiate and follow through on low to medium complexity projects, manage multiple tasks, and meet deadlines 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 dockets, 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 20 pounds maximum with frequent lifting and/or carrying of objects weighing up to 10 pounds. Even though the weight lifted may only be a negligible amount, a job is in this category when it requires walking or standing to a significant degree.	Up to 20#	Up to 10# or requires significant walking or standing, or requires pushing/pulling of arm/leg controls	Negligible or constant push/pull of items of negligible weight
	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:				

Note: The purpose of this document is to describe the general nature and level of work performed by personnel so classified; it is not intended to serve as an inclusive list of all responsibilities associated with this position.