

# UW HEALTH JOB DESCRIPTION

## Data Engineer II

Job Code: 340012

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 II sits at the intersection of software engineering and data warehousing. The Data Engineer II 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. The Data Engineer II 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 II works closely with data scientists and machine learning engineers to build or enhance robust systems with embedded artificial intelligence and data science.

The individual will define and develop components across multiple layers of the data ecosystem including:

- Ingestion of data from a multitude of source systems
- Modeled data assets derived from source system data to provide additional value
- Appropriate data segmentation rules and other data security measures
- Analytic data assets such as data marts that facilitate delivery of an analytic solution and/or the release of data to external entities

Data Engineer II is a valued contributor within UW Health IS who plays the critical role in executing data engineering projects independently. They execute high-quality solutions in a known body of work. The Data Engineer II holds team-level and project-level responsibilities.

The Data Engineer II 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.
  - Assess and make optimal use of cloud-native and third-party capabilities especially within Azure and Databricks
  - 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.
  - Contributes to the continuous integration and continuous delivery (CI/CD) model in Enterprise Analytics
  - 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

- Lead improvement in agility within UW Health IS
- Lead improvement teams and projects within Enterprise Analytics and IS.
- Lead the development and delivery of training relevant to your 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.
- Informally mentor other colleagues by contributing experience and insight to the team and to UW Health.

#### Leadership

- Hold team-level responsibilities and lead the team for medium to large-scale projects
- Lead colleagues in EA in the selection of the appropriate tools and technologies to delivery analytic solutions

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### Technical Leadership

- Develop comprehensive knowledge and understanding of data engineering and additional analytic competencies with a concentration on cloud-based and Epic Cogito technologies.
- Contribute to design patterns, standards, templates, procedures, and technical frameworks for the department. Participate in technical reviews.
- Curate and optimize the analytics asset repository in the corresponding business domain(s), 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"> <li>• Demonstrated success in designing, developing, implementing, testing, and operating large-scale, high-volume, high-performance data structures and other purpose-built data stores for analytics, reporting, machine learning, and data science with low technical debt</li> <li>• Demonstrated success building robust, scalable, reliable data pipelines of medium complexity</li> <li>• Demonstrated success automating and/or continually improving ongoing data pipelines and reporting and analysis processes</li> <li>• Demonstrated success translating requests and requirements into technical specifications</li> </ul>
	Preferred	<ul style="list-style-type: none"> <li>• Three (3) years of relevant data warehousing or ETL development experience in healthcare (provider or payor)</li> <li>• 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)</li> <li>• Project management experience, including agile methods</li> </ul>
Licenses & Certifications	Minimum	<ul style="list-style-type: none"> <li>• None</li> </ul>
	Preferred	<ul style="list-style-type: none"> <li>• Epic certifications in Cogito or other subject area</li> <li>• Relevant certifications related to data warehousing concepts and technologies, ETL development, or other pertinent areas of analytics.</li> <li>• Relevant certifications to agile methodologies, ITIL, process improvement, lean management, or other related activities.</li> </ul>
Required Skills, Knowledge, and Abilities		<p><u>Information Services (IS) Core Competencies:</u> Intermediate proficiency in the following:</p> <ul style="list-style-type: none"> <li>• leadership competencies including leads with integrity, maintains strategic orientation, demonstrates business &amp; financial acumen, champions innovation, manages execution and leads &amp; develops people.</li> <li>• communication</li> <li>• being an effective team member</li> <li>• critical thinking</li> </ul> <p>Emerging competency in the following:</p> <ul style="list-style-type: none"> <li>• technical leadership of applicable products or platforms</li> <li>• leading without direct authority</li> <li>• leading highly empowered, self-directed teams including cross-functional teams</li> <li>• applying lean management tools</li> <li>• applying agile methodologies</li> <li>• mentoring and teaching</li> </ul> <p><u>Position Specific Competencies:</u></p>

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	<p>Intermediate proficiency in at least 2 and emerging proficiency in at least 3 competencies such as:</p> <ul style="list-style-type: none"> <li>• Analytics Architecture</li> <li>• Big Data</li> <li>• Data Modeling</li> <li>• Data Quality - Analysis &amp; Improvement</li> <li>• Data Querying</li> <li>• Data Stewardship &amp; Curation</li> <li>• Data to Information to Action</li> <li>• Enterprise Automation</li> <li>• Enterprise Security, Privacy, &amp; Info Sharing</li> <li>• ETL</li> <li>• Metadata</li> <li>• Software Development Lifecycle (SDLC)</li> <li>• Testing / Software Testing / QA</li> <li>• Web Services</li> </ul> <p><u>Other Required Skills, Knowledge, Abilities:</u></p> <p>Delivering Analytics Solutions</p> <ul style="list-style-type: none"> <li>• Demonstrated ability to initiate and follow through on complex projects, manage multiple tasks, and meet deadlines</li> <li>• Demonstrates professional maturity surrounding data access, data security, data sensitivity and data confidentiality</li> </ul>
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### 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.*

<b>Physical Demand Level</b>		<b>Occasional</b> Up to 33% of the time	<b>Frequent</b> 34%-66% of the time	<b>Constant</b> 67%-100% of the time
<b>X</b>	<b>Sedentary:</b> 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.	<b>Up to 10#</b>	<b>Negligible</b>	<b>Negligible</b>
	<b>Light:</b> 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.	<b>Up to 20#</b>	<b>Up to 10#</b> or requires significant walking or standing, or requires pushing/pulling of arm/leg controls	<b>Negligible</b> or constant push/pull of items of negligible weight
	<b>Medium:</b> Ability to lift up to 50 pounds maximum with frequent lifting/and or carrying objects weighing up to 25 pounds.	<b>20-50#</b>	<b>10-25#</b>	<b>Negligible-10#</b>
	<b>Heavy:</b> Ability to lift up to 100 pounds maximum with frequent lifting and/or carrying objects weighing up to 50 pounds.	<b>50-100#</b>	<b>25-50#</b>	<b>10-20#</b>
	<b>Very Heavy:</b> Ability to lift over 100 pounds with frequent lifting and/or carrying objects weighing over 50 pounds.	<b>Over 100#</b>	<b>Over 50#</b>	<b>Over 20#</b>
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.