

UW HEALTH JOB DESCRIPTION

Data Scientist I			
Job Code: 330091	FLSA Status: Exempt	Mgt. Approval: J. Long	Date: July 2021
Department: Enterprise Analytics		HR Approval: N. Lazaro	Date: July 2021

JOB SUMMARY

The Data Scientist I is constantly showing and pushing the boundary of how healthcare’s most important questions and problems can be answered using data. The Data Scientist I uses everything at his or her disposal, starting with large data sets and varied types of structured and unstructured data and applying a range of techniques including statistical, machine learning, and natural language processing, to discover, explore, and uncover, patterns and insights and distill them into readily consumable formats and visualizations. Ultimately, the Data Scientist I is responsible for doing whatever is necessary to turn data into actionable, data-driven insights that enhance the delivery of clinical care and clinical decision-making.

The Data Scientist I works closely with machine learning engineers, front-line clinicians, stakeholders, informaticists, and researchers, while employing a robust knowledge of healthcare, to deliver the right solution. The Data Scientist I performs experiments and conduct learning to identify the best algorithms and solutions. The Data Scientist possesses a bias towards actionable insights in the name of “getting data science into the system”.

The Data Scientist I is conscious of advancing the data science maturity of UW Health and defining and showing how data science supports the organization’s overall mission and vision.

The Data Scientist I is a valued contributor within the data science team at UW Health. The Data Scientist I performs prescriptive work in a high-quality fashion while building their data science, machine learning and UW Health competencies. The Data Scientist I may work independently on prescriptive tasks or with assistance from other team members.

MAJOR RESPONSIBILITIES

Solution Development and Delivery:

Use data to answer questions and solve problems; uncover insights and patterns in complex data, using complex data and new types of data and methods

Develop predictive and statistical models, insights, patterns, visualizations, that can be used to improve decision making in and improve clinical operations with the focus of creating actionable insights to “get data science into the system”. Performs prescriptive work developing high-quality models.

Process and Standards

Improve team-level processes

People:

Deliver and communicate data science solutions, findings, and statistical concepts, to other data science team members.

Work on a cross-functional team to design and deploy solutions in production software and systems using agile principles and agile scrum methodologies.

Develop increasing competency with healthcare big data, data science, and machine learning. 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 Computer Science, Statistics, Data Science, or relevant quantitative Engineering field (Four (4) years relevant work experience may be considered in lieu of Bachelor’s degree)
	Preferred	Master’s or Doctorate degree in Computer Science, Statistics, Data Science, or relevant Engineering field
	Minimum	None

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Work Experience	Preferred	<ul style="list-style-type: none"> • 1 year of experience with data and statistical analysis preferably with large data sets or unstructured data (free text, images, machine or IoT)
Licenses & Certifications	Minimum	None
	Preferred	<ul style="list-style-type: none"> • Epic certifications in Cogito • Epic badge or certification in Cognitive Computing Platform
Required Skills, Knowledge, and Abilities		<p>Emerging proficiency in all four of the following:</p> <p><u>1. Working with “big data” including large volumes of data, unstructured data, streaming data, data veracity:</u></p> <ul style="list-style-type: none"> • Skilled at working with unstructured data such as text, streaming, or machine data, and working with “big” data technologies like Apache Spark • Solid understanding of data structures, data modeling, dimensional modeling • Skilled in creating visualizations of data such as ggplot, matplotlib <p><u>2. Coding techniques, best practices, and mindset, for data science:</u></p> <ul style="list-style-type: none"> • Skilled at writing robust code in Python, R, Spark, SQL including notebook-based workflows (Jupyter, R, Spark) and creation of reusable code packages and libraries, and at version control (GitHub) • Skilled at testing code including techniques best practices used in software testing <p><u>3. Statistics theory and techniques used in data science:</u></p> <ul style="list-style-type: none"> • Strong knowledge of math, probability, statistics, and algorithms, such as linear algebra, Bayesian statistics • Skilled in using statistical methods (such as boosting, generalized linear models/regression, random forests, social network analysis) and in using machine learning techniques (such as artificial neural networks, clustering, and decision tree learning) <p><u>4. Healthcare subject matter expertise:</u> Subject matter expertise in one or more areas such as hospital operations, ambulatory operations, population health management, performance measure development, healthcare administration, patient satisfaction, strategic planning, labor and productivity analytics, financial modeling, cost accounting, revenue cycle management, and survey design/development</p> <p><u>Solution Development and Delivery:</u> Outstanding analytical and problem-solving abilities Identifies and leverages sufficiently appropriate statistical methods, data science techniques, or technological capabilities, to solve the problem, as prescribed by the work</p> <p><u>Process and Standards</u> Ability to receive prescriptive feedback Ability to perform specific and constituent tasks in data science solution development</p> <p><u>People:</u> Ability to engage in cross-functional interactions Ability to work in a team Ability to work in agile, iterative frameworks</p> <p><u>Communication, Mentoring, and Teaching:</u> Skilled in written and verbal communication</p>

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	Frequent	Constant
	Up to 33% of the time	34%-66% of the time	67%-100% of the time

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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 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 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:				