

# University of Nebraska Central Administration

## JOB DESCRIPTION

### GENERAL INFORMATION

Working Job Title: <b>Data Scientist</b>	Job Family: <b>EVPP</b>	Job Family Zone:
Position Number:	Department Name: <b>EVPP</b>	SAP Organization Unit Number:
Employee's Name:	Date of Last Update: <b>4/24/2019</b>	Title of Supervisor: <b>Assistant Director Institutional Research</b>
SAP Personnel #:	Last Updated By: <b>Vanessa Roof</b>	Name of Supervisor: <b>Vanessa Roof</b>

### POSITION SUMMARY

The Data Scientist provides a crucial role in helping the NU System achieve the vision of making actionable data accessible to users across the system. The Data Scientist is responsible for utilizing institutional data to interpret meaning and prediction for business purposes using a variety of methodologies and sharing results via data visualizations or presentations.

### DUTIES & RESPONSIBILITIES

Indicate % of time spent and indicate with an "*" the duties & responsibilities that are essential functions of this job. Arrange this list of duties in order of importance.	% of Time	Essential Functions
<p><i>Responsibilities:</i></p> <ul style="list-style-type: none"> <li>• Work closely under the guidance of the Chief Data Officer to implement the strategy and vision that will meet the organizational needs of the Executive leadership and key stakeholders.</li> <li>• Using a variety of methodologies, provide data modeling and statistical interpretation of data to answer questions related to business needs.</li> <li>• Support and collaborate with primary stakeholders by providing necessary data and interpretations.</li> <li>• Provide data summaries to executive leadership in the form of presentations, white papers, and online data visualizations.</li> <li>• Provide ongoing project plan/status reporting for customers and management.</li> <li>• Work closely with team members to build and model data.</li> <li>• Other duties as assigned.</li> </ul>	100	*

## ZONE DEFINITION FACTORS

### *Nature/Complexity of Work*

The Data Scientist is responsible for utilizing institutional data to interpret meaning and prediction for business purposes. Complexity of work is high. Design of complex data models requires a great deal of planning and coordination. Currency of technical skills is vital in order to react quickly to changing reporting needs and technology. Position requires competence to manage multiple projects, involving various people and positions, with multiple sponsors and diverse technology and goals.

### *Problem Solving/Decision-making*

Position requires in-depth analysis of business processes and developing potential technical solutions at both a strategic and operational level and then developing and managing some solutions utilizing PMO. Decisions often must be made quickly in order to meet aggressive customer demands.

### *Strategic Impact*

The University of Nebraska's institutional data is a University asset that is needed to support decision makers. Successful management and protection of information and data is critical to the administrative, educational, and research functions within the NU System.

### *Know How*

The Data Scientist must possess a collaborative attitude, strong oral/written communication skills, excellent problem solving skills and solid analytical/critical thinking skills. The Data Scientist will utilize statistical software, visualization tools, and a variety of data sources (databases, files, ERPs, etc.) to deliver solutions for members of the campus community. This position will collaborate with a variety of campus stakeholders to develop metrics, analyses, and visualizations to answer decision-making needs.

### *Technical Know How*

The incumbent will be familiar with a variety of statistical products and languages (e.g. Python, SAS, SPSS, Stata) as well as experience in the complex modeling and interpretation of data (e.g., multilevel modeling, hazards modeling, social network analysis).

### *Leadership*

The Data Scientist will be a steward of knowledge and share in development of data governance initiatives to help facilitate an open, transparent and ethical approach to the transformation of data culture at the University of Nebraska. The ideal team member supports executive leadership by providing data informed results to drive strategic initiatives. Serves as a role model, resource, and a mentor through leading by example; is able to identify and work through obstacles that reduce efficiency or effectiveness; serves as an advocate for the interests and needs of the institution.

### *Interactions*

Interactions are required across the University system. Communication is required with technical and business areas at the campus level. Ability to work effectively in a professional manner with sensitivity and diplomacy for people at various levels within an organization (technology staff, business stakeholders, end users, management) and others outside the organization. Must have the ability to work as a member of team, as well as independently, in a complex higher education environment, and with respect for confidential and sensitive information. Must be able to succeed in a collaborative and diversified team environment. The

ideal incumbent will have a curiosity and passion about data and solving problems, as well as an ability to determine the best solution for business need. They will have a willingness to question the validity, accuracy of data and assumptions while enjoying collaborating with others.

## SUPERVISION

This position receives general guidance and supervision from the Assistant Director of Institutional Research.

### *Minimum Qualifications*

Bachelor’s degree in Computer Science, Business, Mathematics, Statistics, Social Science, or related field. Minimum three years of significant experience performing complex statistical or research analyses is essential. Minimum of one year of significant experience creating data visualizations (e.g. Tableau, Microsoft Power BI, R, Python, MATLAB, D3, or similar) required. Excellent written and verbal communications skills, including experience making presentations in a business or professional setting necessary. Demonstrated ability to work cooperatively with an interdisciplinary team required. Must have exceptional attention to detail, excellent problem solving and listening skills. Equivalent education/experience considered.

### *Preferred Qualifications*

- Master’s degree in Computer Science, Business, Mathematics, Statistics, Social Science, or related field.
- Experience in Institutional Research and higher education.
- Familiarity with machine learning and artificial intelligence principles.
- High tolerance for ambiguity.
- Appreciation of humor and creative problem-solving a plus.

## PHYSICAL REQUIREMENTS

**General Physical Requirements:** Indicate the appropriate response for an eight hour day:

	Circle the appropriate number of hours										<i>Indicate intermittent or constant</i>	
	0	1	2	3	4	5	6	7	8	Intermittent	Constant	
Sit	0	1	2	3	4	5	6	7	8		X	
Stand	0	1	2	3	4	5	6	7	8	X		
Walk	0	1	2	3	4	5	6	7	8	X		
Drive Motor Vehicle	0	1	2	3	4	5	6	7	8			

Explain

**2. THIS POSITION REQUIRES:**

	Occasionally (less than 2 hrs daily)	Between 2 - 5 hrs daily	Over 5 hrs daily
Squatting	X		
Bending	X		
Kneeling	X		
Reaching	X		
Overhead			
Forward			
Low			
Twisting	X		
Crawling	X		
Climbing	X		
Ladder			
Stairs			
Other			
Walking on rough ground			
Exposure to changes of temperature/humidity			
Exposure to dust/fumes/gases/chemicals			
Being near moving machinery			
Working from heights			

**3. THIS POSITION REQUIRES EMPLOYEE TO:**

Indicate letter in appropriate Space:    **LIFT=L**    **CARRY=C**    **PUSH=P**    **PULL-PL**

	Less than 2 hrs daily	Up to 2 hrs daily	Between 2-5 hrs daily	Over 5 hrs daily
11 - 24 lbs	L			
25 - 49 lbs				
50 - 74 lbs				
75 - 100 lbs				
* Over 100 lbs				

\* If the position requires the employee to handle over 50 lbs - please explain

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**4. POSITION REQUIRES USE OF HANDS OR SPECIAL TOOLS/EQUIPMENT FOR:**

	RIGHT	LEFT	BOTH
Keyboarding			X
Filing	_____	_____	_____
Other Explain:	Use of regular office equipment.		

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*Job Family Zone Questionnaire*

**IN EACH SECTION, PLEASE SELECT ONE ANSWER THAT BEST DESCRIBES YOUR JOB:**

Knowledge Skills and Abilities:

\_\_\_\_\_ Requires the ability to understand and apply basic job skills, knowledge of several work routines and the ability to apply such routines with minimal interpretation. May possess knowledge of other, related work activities within own functional area. May require the operation of routine equipment/tools. [1]

\_\_\_\_\_ Requires the ability to understand, interpret, apply and communicate information within a specialization and the ability to apply limited analysis in the completion of general functional procedures. May possess knowledge of work activities outside functional area. May require the operation of moderately complex equipment/tools. [2]

\_\_\_\_\_ Requires the ability to utilize advanced information within a specialization. Within specialization, possesses the ability to assess/ analyze situations and make adjustments to achieve desired objectives. Possesses knowledge of work activities outside functional area. May require the operation of complex equipment/tools. [3A]

\_\_\_\_\_ Requires the ability to apply, integrate and communicate extensive theoretical information within a recognized professional field. Facilitates and/ or establishes the achievement of functional area objectives. Requires knowledge of all related functional areas. May require the operation of highly complex equipment/tools. [3B]

X\_\_\_\_\_ Integrates extensive theories and techniques within related or diverse disciplines to achieve results and/ or establish overall strategic directions. Requires wide-ranging administrative and/ or specialized knowledge. May require the operation of highly complex equipment/tools. [4]

### Problem Solving/Decision-making:

Decisions/problem resolutions are repetitive and simple and typically guided by standard operating policies and procedures/practices exist. Tasks are clear and specific to a single discipline. [1]

Decisions/problem resolutions require gathering/reviewing information from several sources. Simple analysis of facts determines course of action to be taken within the limits of standard operating policies and procedures/practices. Tasks are varied and may cross several disciplines. [2A]

Decisions/problem resolutions require interpretation, discretion and judgment based on precedent or standard operating policies and procedures. Tasks are diversified and may require some creativity in dealing with unprecedented activities. [2B]

Decisions/problem resolutions require synthesis/analysis in the use of theories and accepted principles. Programs/projects are governed by broad objectives, policies and/or theories. Requires the use of creativity in dealing with unprecedented activities. [3]

Decisions/problem resolutions require analysis and evaluation of major issues and courses of action impacting the overall direction of the functional area(s). Applies broad concepts and experience in making important decisions. May develop recommendations influencing long-term policies related to major organizational plans. [4]

### Interactions:

Regular contact involves receiving and/or referring inquiries as well as giving or obtaining routine information relating to work being done. Requires the use of common business courtesy. [1]

Regular contact that involves giving or obtaining information as well as occasionally exchanging advice and opinions. Requires the use of common business courtesy, tact, discretion and some persuasion to maintain cooperative associations. [2]

Regular contact that involves exchanging advice and opinions as well as occasionally conveying conceptual ideas of a critical and/or long-range nature. Requires the use of judgment, timing, and persuasion to gain cooperation in the face of differences of opinion or controversy. [3]

Regular contact with major Programs/Teams or individuals. Overriding job requirement involves conveying conceptual ideas regarding matters of critical and long-range nature. Significant requirement for diplomacy, timing, and persuasion to gain concurrence or cooperation on operational issues in the face of significant differences of opinion or controversy. [4]

### Supervision Received:

Supervised by procedures or by supervisor through periodic monitoring of progress and performance. May have latitude to determine sequence of own work tasks to meet clearly established schedules. [1]

Supervision by procedures or by supervisor through periodic monitoring of progress and performance. Determines sequence of own work tasks to meet established objectives. [2A]

General direction by supervisor by checking on completed tasks. Establishes own work schedule to achieve program objectives. Makes recommendations to superior regarding efficient functioning of program. [2B]

Responsible for conducting specialized assignments or developing programs under only general direction and guidance. [3]

Extensive latitude to work independently in matters that have a broad effect on overall policies, programs and/or areas of specialization. [4]

Supervision Exercised:

May provide incidental guidance to others. [1]

Provides functional supervision that is usually limited to assigning/reviewing work or may serve as work team leader. [2A]

Serves as work team leader. Distributes, schedules, and monitors the progress or work tasks of the program or project. May be involved in the recommendation of personnel actions to manager. [2B]

Supervises the work of a project or program that may include hiring, discipline, transfers, promotions, or salary changes within a functional area. May integrate work of two or more programs or one major function/or project. [3]

Establishes performance standards for designated programs and/or areas of specialization. Directs staff to include hiring, discipline, transfers, promotions, and salary changes. [4]

Impact:

Actions and decisions in this job are limited to the scope of the job, which primarily affect the immediate work group, but occasionally may extend beyond the immediate work group. Errors reflect unfavorably on the individual and may have an adverse impact on the functional area. [1]

Actions and decisions in this job have an impact which affects the immediate work group and also extends beyond the immediate functional area. Errors reflect unfavorably on the individual and the functional area. [2]

Actions and decisions in this job have discernible impact to the short-term performance of the Program/Team and exerts some impact to its long-term success. Errors reflect unfavorably on the individual, the functional area, overall business operations and potentially other functional areas. [3A]

Actions and decisions in this job have significant impact to the short-term performance of the Program/Team and exert an impact to its long-term success. The job exerts a considerable impact on decisions and final results typically affecting either an entire functional area or a major university activity; and may have unique accountability for financial and program or project objectives. Errors effect business operations, services and other individuals which may require special interventions to correct. [3B]

Actions and decisions in this job exert broad and continuing impact on the future of one or more functional areas. The job exerts a major impact on decisions and final results affecting a major university activity; and/or has accountability for financial and program/project objectives and overall successes. Errors significantly interrupt business operations, services and potentially both internal and external constituents. [4]

<i>Summary:</i>	<i>Zone Assignment=</i>	
<i>Authorization:</i>	<i>Name:</i>	<i>Date:</i>
<i>Human Resources</i>		

*Supervisor:*

*Administrator:*