

UMMS Career Ladder Matrix

Data Scientist Job Family

Job Title	Data Scientist, Associate	Data Scientist	Senior Data Scientist
Job Code	MC0076	MC0077	MC0075
Pay Grade	74	75	76
<b>Position Summary</b>	Under the direction of a member of the faculty or designee, the Data Scientist is responsible for modeling complex clinical and research problems, discovering insights and identifying opportunities through the use of statistical, algorithmic, mining and visualization techniques. In addition to advanced analytic skills, this role is also proficient at integrating and preparing large varied datasets, designing specialized database and computing environments, and presenting results. Data Scientists work closely with clients, project/program managers, and other IT teams to turn data into actionable information and knowledge that can be used to make sound organizational decisions. Core traits include creative thinking, innovative proposals, and expert data mining techniques. They will need to validate their findings using an experimental and iterative approach. In addition, he/she will perform diverse and complex duties in a manner consistent with a dynamic and active biomedical education and research community. or designee, the Data Scientist is responsible for modeling complex clinical and research problems, discovering insights and identifying opportunities through the use of statistical, algorithmic, mining and visualization techniques. In addition to advanced analytic skills, this role is also proficient at integrating and preparing large varied datasets, designing specialized database and computing environments, and presenting results. Data Scientists work closely with clients, project/program managers, and other IT teams to turn data into actionable information and knowledge that can be used to make sound organizational decisions. Core traits include creative thinking, innovative proposals, and expert data mining techniques. They will need to validate their findings using an experimental and iterative approach. 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<b>Essential Functions /Scope</b>	<ul style="list-style-type: none"> <li>* Assist with and co-deliver information systems solutions in alignment with the Medical School's strategic and tactical business plans.</li> <li>* Incorporate technology tools where appropriate</li> <li>* Aid with design experiments, test hypotheses, and build models</li> <li>* Perform data analysis and moderately complex design algorithms.</li> <li>* Work with team members to solve client analytic problems and document results/methodologies.</li> <li>* Assist and perform experimental design approaches to validate finding or test hypotheses.</li> <li>* Validate/Verify analysis by comparing appropriate samples.</li> <li>* Use appropriate algorithms to discover patterns in complex datasets</li> </ul>	<ul style="list-style-type: none"> <li>* Envision and deliver information systems solutions in alignment with the Medical School's strategic and tactical business plans.</li> <li>* Identify efficient tools for business and clinical application design and development. Incorporate technology tools where appropriate</li> <li>* Design experiments, test hypotheses, and build models</li> <li>* Work with stakeholders to identify requirements.</li> <li>* Collaborate with subject matter experts to select the relevant sources of information</li> </ul>	<ul style="list-style-type: none"> <li>* Participate in the oral presentation of all project findings and abstracts including participation in periodic project status meetings and presentation of final project deliverables.</li> <li>* Prepare informational/educational materials for users and train clinical researchers in the use of analytical datasets.</li> <li>* Conduct advanced data analysis and complex design algorithms</li> <li>* Work with IT teams to support data collection, integration, and retention requirements based on requirements.</li> <li>* Make strategic recommendations on data collection, integration and retention requirements incorporating knowledge of best practices</li> <li>* Develops innovative and effective approaches to solve analytical problems and communicate results and methodologies.</li> <li>* Validate analysis using various modeling techniques.</li> <li>* Identify/create appropriate algorithms to discover patterns in complex datasets.</li> <li>* Partner with the data stewards to define data quality expectations.</li> <li>* Develop usage and access control policies in collaboration with the data stewards</li> </ul>
<b>Required Qualifications</b>	<p>M.S. in Data Science, Informatics, a related field, or equivalent experience</p> <p>1-3 years of experience in development and implementation of technologies</p> <p>Strong interpersonal and communication skills required. Demonstrated ability to provide documentation. Ability to communicate effectively in writing generate new algorithms and programs for custom data manipulation and analysis.</p>	<p>M.S. in Data Science, Informatics, a related field, or equivalent experience</p> <p>3-5 years of experience in development and implementation of technologies</p> <p>Proven experience with clinical and clinical trial data. Experience working in a scientific research environment.</p>	<p>Master's degree in Computer Science, a related computational discipline, or equivalent experience</p> <p>5-7 years of experience in development and implementation of technologies</p> <p>Proven experience with clinical and clinical trial data. Experience working in a scientific research environment.</p>
<b>FLSA Status</b>	Exempt	Exempt	Exempt
<b>Promotional Process</b>	Requisition	Requisition or In-family Promotion from Associate Data Scientist	Requisition or In-family Promotion from Data Scientist