**Title: Specialist, Data Science**

**Position Description**

This position is responsible for executing data science related simulations and analytical projects and communicating the analytical outcomes to internal Sales and Marketing teams. It requires the development of various simulation techniques, particularly agent-based models, that mimics the market conditions of our therapeutic areas both in US and Ex-US markets. Various marketing functions such as targeting, managed care, sales and marketing promotions, competitive landscapes etc, and their interactions will be the object of simulation. Cross functional collaborations along with storytelling capabilities are some of the key components of the position. This position is also responsible for developing and guiding marketing strategies using simulation outcomes.

Primary activities and responsibilities include, but are not limited to:

Technical:

* Analyze various patient claims, physician level, EMR data sources, outcome research, census based demographics, competitive intelligence, forecasts, promotions, managed care positions etc. to understand the marketing environments of our brands.
* Understanding social interactions through graph networks and behaviors through various behavioral modeling techniques such as discrete choice models as well as wide varieties of machine learning models.
* Build Python based agent-based models to simulate. Use off-the shelf simulation tools.
* Apply distributed computing techniques to scale the simulations across large clusters.

Project Management and Communication:

* Collaborate effectively with multiple functional teams, particularly Sales and Marketing teams, analytical and IT teams.
* Collect requirements, develop scope, timelines, and communication plans. Develop various study scenarios in partnership with multiple cross-functional teams.
* Effectively communicate the results to end stakeholders (Marketing) and follow through with their implementations.
* Highly flexible and adaptable to constantly changing scopes and environments.

The Primary Activities include:

* Directly influence decisions concerning the marketing strategies.
* Projects are product-specific, including new and in-line products, and/or focused on issues spanning multiple products.
* Challenged to synthesize information about therapeutic markets and their products, current marketing and sales practices, best practice marketing concepts, and pertinent market data to develop actionable recommendations.

This position resides within the Data Science team within the Commercial Analytical Solutions / HHDDA organization.

**Position Qualifications:**

**Education Minimum Requirement:**

* Master of Science (MS) in Data Science, Operations Research, Statistics, Econometrics, Management Science, Psychometrics, Computer Science, Engineering, or closely related field by Summer 2024

**Required Experience and Skills:**

* Strong working Knowledge of Python along with Distributed Computing experiences
* Understanding of the Health Care or Pharmaceutical industry and experience in using various 3rd party data sources, such as IMS Exponent and/or Longitudinal Patient Level Data are necessary.
* The candidate must also have demonstrated strong client and project management experience, having to manage multiple analytical projects simultaneously and foster collaboration with colleagues.
* The candidate must have experience managing cross-functional teams and/or outside service providers to successfully deliver on analyses with multiple contributors and stakeholders.
* Superior communication and leadership skills are critical in order to develop, propose and convey technical concepts to business customers. Candidate must have demonstrated skills in developing concise and decision driven presentations that will inform decisions made by Senior Leaders.

**Preferred Experience and Skills:**

* **Two** years of relevant work experience in commercial analytics within pharmaceutical industry or candidate with a PhD in relevant quantitative field.
* Experience with SQL, AWS environment, Java, R, SAS, Excel, Dataiku, Sagemaker.
* Experience in and/or conceptual understanding of applying various simulation techniques such as Agent Based, System Dynamics, Discrete Event simulations.
* Agile development experience. Being comfortable with making informed decisions under ambiguity.
* Experience in applying advanced statistical methods, machine learning, Discrete Choice models, linear and non-linear optimization techniques to address business questions.
* Experience with one or more of the following advanced techniques are also desirable: Bayesian data analysis, longitudinal analysis of time series cross sectional data, repeated measures modeling, Hierarchical Linear Modeling, data mining techniques, temporal sequence mining, Neural Networks, Deep Learning, Classification and Regression Trees (CART) and/or Discrete Choice Models.