

Job Title: Associate Director in Real World Data Advanced Analytics Research, Health Economics and Outcomes Research (HEOR), Regeneron Pharmaceuticals, Inc

Location: Sleepy Hollow, NY

Company Overview:

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In supporting Regeneron clinical development programs, this position will be responsible for utilizing advanced analytics skill sets such as machine learning and deep learning to analyze complex real word data including claims, electronic health records, registry data and other structured or unstructured data, and effectively interpret/communicate the results to the internal stakeholders. The successful candidate will work closely with cross-functional teams to apply their skills in developing and implementing predictive models, causal inference models, and statistical analysis methodologies to support the clinical development.

Key Responsibilities:

1. Design and develop machine learning/deep learning models to extract insights and patterns from complex real-world data.
2. Utilize various data mining techniques, including clustering, regression analysis, machine learning based survival analysis, tree-based models, deep learning models to develop predictive models.
3. Utilize various machine learning explanation techniques to make the developed models more interpretable.
4. Conduct exploratory data analysis to identify important features, relationships, and trends from RWD.
5. Effectively communicate insights mined from the data to internal stakeholders.
6. Work collaboratively with cross-functional teams including real world evidence scientists, epidemiologists, clinical trial designers/planners to apply machine learning algorithms to various drug development projects.
7. Stay up to date with the latest advancements in machine learning/deep learning techniques, and implement best practices in the development and application of predictive models.

Qualifications:

- A Ph.D. or Master degree in computer science, biomedical informatics, statistics, data science, or related quantitative science.
- At least 3 years of experience in developing and applying machine learning/deep learning algorithms to large-scale, complex real world data sets.
- A track record of publications in journals and conferences.
- Proficiency in programming languages such as Python, R, and SQL.
- Experience with deep learning frameworks such as TensorFlow, PyTorch, and Keras.
- Knowledge of statistical analysis methodologies, data mining, and predictive modeling.
- Excellent communication and collaboration skills with the ability to work in a fast-paced, dynamic environment.