Associate Director - Data Science - Resource Optimization

Job ID
REQ-10060873

9   12, 2025

India

The Insights and Decision Science (IDS) team is dedicated to enabling improved decision-making at Novartis by leveraging data and advanced analytics capabilities to generate actionable insights that drive business growth. Collaborate closely with the US teams, bringing insights and challenging ideas to empower smarter, data-driven decision-making. This role is crucial in analysing actual and predictable interacting operational activities to support data-driven decision making. The Lead for Resource Optimization plays a crucial role in analysing both actual and anticipated operational activities within the business to derive quantitative outcomes. This position establishes a rational foundation for decision-making by applying scientific and economic disciplines and techniques. With expertise in developing complex statistical models and measurement techniques, the Lead utilizes a range of methodologies, including mathematics, statistical methods, engineering methods, and operational mathematics techniques such as linear programming, game theory, and probability theory. By leveraging diverse datasets and advanced statistical techniques, the Lead – Resource Optimization drives strategic thought and effective decision-making, combining data analytics with business functions to uncover valuable insights that clarify both the what (data) and the why (business) behind business decisions. Acting as a strategic partner the Lead employs modern market research strategies and methods to address the needs of key stakeholders, ensuring that informed strategies can be developed and implemented in alignment with the organization's strategic

objectives.

About the Role

Key Responsibilities:

- Contributes to shaping and executing the Resources allocation and Optimization capabilities. Co-defines a (customer centric) vision and priorities for the Functional team based on needs of the business, Insights and Analytics vision, input from team and stakeholders with a focus on statistical modeling, machine learning, and scalable data science solutions.
- Proactively proposes analytical and statistical solutions to business questions and problems and provide key stakeholders with new data driven ideas and actionable recommendations that enables better decision-making and enhance the business excellence leveraging predictive modeling, simulation techniques, and hypothesis-driven experimentation.
- Develops advanced technological ideas and guides their development into a final product, leveraging data science methodologies, tools and strategies using internal and external data sources to gain market insights leveraging data science methodologies and programming
- Explores and evaluates new data sources for targeting to drive Insights and innovation and to identify opportunities for improvement.
- Designs and validates advanced statistical models (Bayesian, regression, survival analysis, resource allocation optimization, etc.) and integrates them into business decision processes.
- Maintains full compliance with internal and external guidelines: stays current on external and internal guidelines.
- Fosters collaboration, customer centric solution design

Essential Requirements:

- Minimum of 8 years of experience in Market Mix Modelling , Resource optimization, strategic planning, or a similar role within the pharmaceutical or healthcare industry.
- Strong understanding and application of statistical methods, optimization algorithms, deep learning, foundational/LLM models, and predictive analytics.
- Commitment to driving and enabling data-driven decision making throughout all levels of the organization; strong analytical and problem-solving skills with the ability to interpret complex data and generate actionable insights.
- Exceptional business acumen, paired with a deep understanding of business dynamics in the context of the pharmaceutical industry. Experience in managing multiple projects simultaneously, ensuring timely delivery and alignment with business goals.
- Experience in managing relationships with key stakeholders, including senior leadership and external partners; demonstrated strong leadership skills in a team environment which requires negotiation, persuasion, collaboration, and analytical judgment.
- Ability to work effectively with cross-functional teams and drive strategic initiatives. Excellent verbal and written communication skills to articulate and present business problems and solutions to key stakeholders persuasively.
- Proficiency in data science tools and software, such as Python, Spark, R, Databricks etc. Ability to thrive in a fast-paced, dynamic environment and adapt to changing business needs

and priorities.

Education (Minimum/Desirable):

Bachelor's degree in related field is required; Master of Science and/or MBA strongly preferred

Additional qualifications are as follows:

- Minimum 10 years of experience in analytics, decision science, or related roles, preferably in the pharmaceutical or healthcare sector

- Ability to balance operational execution with high-level strategic thinking, supporting both day-to-day performance and long-term business goals

- Ability to work collaboratively with cross-functional teams, including sales, data Operations , and product development and drive strategic initiatives

- Excellent communication skills, capable of effectively collaborating with senior leadership and aligning diverse teams

- Proficiency in insight and hypothesis generation, data science, and primary and secondary research methodologies

- Ability to thrive in a fast-paced, dynamic environment and adapt to changing business needs and priorities.

Why Novartis: Our purpose is to reimagine medicine to improve and extend people's lives and our vision is to become the most valued and trusted medicines company in the world. How can we achieve this? With our people. It is our associates that drive us each day to reach our ambitions. Be a part of this mission and join us! Learn more here: https://www.novartis.com/about/strategy/people-and-culture

You'll receive:You can find everything you need to know about our benefits and rewards in the Novartis Life Handbook. https://www.novartis.com/careers/benefits-rewards

Commitment to Diversity and Inclusion:
Novartis is committed to building an outstanding, inclusive work environment and diverse teams' representative of the patients and communities we serve.

Join our Novartis Network: If this role is not suitable to your experience or career goals but you wish to stay connected to hear more about Novartis and our career opportunities, join the Novartis Network here: https://talentnetwork.novartis.com/network.

Why Novartis: Helping people with disease and their families takes more than innovative science. It takes a community of smart, passionate people like you. Collaborating, supporting and inspiring each other. Combining to achieve breakthroughs that change patients' lives. Ready to create a brighter future together? https://www.novartis.com/about/strategy/people-and-culture

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Benefits and Rewards: Read our handbook to learn about all the ways we'll help you thrive personally and professionally: https://www.novartis.com/careers/benefits-rewards

US

Business Unit
Universal Hierarchy Node

India

Hyderabad (Office)

Company / Legal Entity
IN10 (FCRS = IN010) Novartis Healthcare Private Limited

Functional Area
Data and Digital

Job Type

Full time

Employment Type
Regular

Shift Work
No

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Accessibility and accommodation

Novartis is committed to working with and providing reasonable accommodation to individuals with disabilities. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the recruitment process, or in order to perform the essential functions of a position, please send an e-mail to diversityandincl.india@novartis.com and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

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