

Senior Expert Data Science

Job ID

REQ-10012870

08 October 2024

India

Summary

Artificial Intelligence and Computational Sciences: Biomedical Research

The AI & Computational Sciences (AICS) is the dedicated AI team at Novartis Biomedical Research (BR) whose mission is to apply AI to accelerate discoveries of transformative medicines for patients worldwide. AICS is seeking highly motivated early career AI engineers and researchers to help us in the journey. At AICS, you will take on a hands-on role at the intersection of AI, computer science, and biological and chemical sciences using extensive internal and external data for realistic applications. You will have the opportunity to be a part of the next wave of disease understanding and drug discovery, combining insights from a wealth of data modalities including diverse omics types like genomics, transcriptomics (such as single-cell RNA sequence data), proteomics, compound structures, compound activity, protein structures, measurements from cellular experiments and safety studies, histopathology, clinical imaging, and clinical readouts. You will be a part of a unique organization made up of accomplished scientists who are at the forefront of various AI disciplines and will benefit from on-the-job learning where there are gaps. Our primary hiring focus is in the following areas: Natural Language Processing (NLP) and Generative AI, and application of AI in medicinal chemistry, specifically design of biological medicines.

About the Role

- Hands-on role developing and implementing innovative AI methods (use of an AI model on a specific dataset for a specific purpose) with minimal supervision as well as independently to deliver on highly visible projects
- Advanced development skills in Python and the ability to understand and internalizing AI models from published papers and repositories
- Train, test, and evaluate AI models on realistic internal and external data, and present results in an organized manner for team evaluation and input
- Work effectively within a cross-functional team for AI model development and implementation
- Develop and deliver various biological and chemical insights from applying AI models to a broader community.
- Stay up to date in the latest developments of AI methods through self-learning and using on-the-job opportunities
- Know and manage run time requirements of AI models, visualizations, and cloud-based computation to increase efficiency and quality of AI approaches
- Develop new AI models from scratch using TensorFlow or PyTorch, understanding and modifying learning

objectives and training methods of the models

Essential Requirements:

- Extensive classroom learning as well as on-the-job, hands-on experience of advanced AI models, selecting and applying suitable AI models for a given purpose.
- Experience with AI is expected not just at the level of running the code but deep understanding models, their purpose, and the ability to interpret functioning of a model on given data
- Demonstrable deep experience in one or more of specific AI focus areas we are hiring: NLP and Generative Models (LLMs), and AI for medicinal chemistry and design of biological medicines
- Strong skills in Python, relevant Deep Learning frameworks such Transformers, advanced AI model training methods
- Experience with high performance computing systems and cloud-based services involving large and diverse biomedical data
- Running AI model using GPU is a must and the ability to scale a model to multi-GPUs is big plus
- Strong communication skills to explain technical details, decisions, consequences, and results to senior researchers and non-data science communities
- Deep understanding of biological and chemical datasets, knowledge repositories in the areas such Gene Ontology
- A humble and curious mind that can continuously learn while recognizing and applying internal resources to the overall vision and purpose of the team

Desirable Requirement:

- Bachelor's degree (master's or PhD is highly desirable) in a computational field including, but not limited to: AI, Computer Science, Applied Mathematics, Computational Biology/Chemistry, Engineering, Statistics, and Physics
- 3 - 5 years of deep, hands-on experience working on AI projects and either clear evidence of significant projects personally developed and delivered and/or publication track record
- 3 - 5 years of experience in working with large scale, realistic data sets and analyzing results towards specific business/scientific outcomes
- Experience in pharma, biotech, or healthcare is a big plus but strong tech background with the willingness to adapt to pharma is equally acceptable.

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>

Join our Novartis Network: Not the right Novartis role for you? Sign up to our talent community to stay connected and learn about suitable career opportunities as soon as they come up: <https://talentnetwork.novartis.com/network>

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>

Division

Biomedical Research

Business Unit

Pharma Research

Location

India

Site

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

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