INSTITUT DE CARDIOLOGIE DE MONTRÉAL

Data scientist position in cardiovascular disease research (artificial intelligence, bioinformatics)

We are looking to fulfill a full-time data scientist position at the Montreal Heart Institute Research Center (MHI-RC) in Montreal, Canada.

Job Description:

The successful candidate will be part of a team of highly qualified professionals, deployed within the CR-ICM. In collaboration with researchers and other team members, this person supports the development and implementation of projects using big data in the field of cardiovascular health. The person also sees to the sharing of methodologies and know-how between research laboratories.

Specific tasks include:

- To act as a computer and technological expert for CR-ICM researchers in the development of cardiovascular health projects using big data.
- To develop analysis methods and implement data processing tools. To validate and test the tools developed.
- To design scientific databases used for storage, consultation and visualization of experimental results and analysis data. Ensure data integrity and processing accuracy.
- To produce analysis reports that include a description of the problem, the analytical steps, data accuracy, the results, and their interpretation.
- To contribute to unifying projects and to the set-up of data infrastructure.
- To work in close collaboration with professionals and researchers from various disciplines in the health sector, in artificial intelligence and in bioinformatics.

Required qualifications:

- Master's degree in an appropriate field of specialization (computer science, bioinformatics, mathematics, statistics)
- Three (3) years of experience in health-related work or doctoral university degree in an appropriate field of specialization
- Experience working in the field of big data (including experience with libraries for analysis of organized data such as Pandas, Apache Hadoop, Apache Spark, etc)
- Demonstrated skills with scripted languages (*e.g.,* Python, R, Bash)
- Good knowledge of statistics

The following skills would be an asset:

- Experience with machine learning algorithms and libraries (Keras, TensorFlow, PyTorch, etc)
- Experience with the analysis of genetic, proteomic, metabolomic data
- Experience with the analysis of medical images or medical signals (i.e. electrocardiograms)
- Experience working with collaboration systems and version management (git or other)
- Experience in software development
- Skills in the design, implementation, and management of database systems
- Experience in setting up and maintaining user interfaces to facilitate access to data and analyzes for non-coding users (example, Shiny, Tableau)
- Experience in setting up and maintaining user interfaces to track algorithm training and validation (*i.e.* Weight & Biases, Tensorboard, etc).
- In-depth knowledge of administrative data analyses of government health registries

Qualified applicants should email their resume and a letter of intent including a summary of past accomplishments to: julie.hussin@mhi-omics.org