



DEEP-LEARNING ENGINEER

Full-time position:

We are looking for a deep-learning engineer with a solid experience in graph algorithms. We offer the opportunity to work with cutting-edge genomic data to advance medical science.

Our Company:

One Biosciences is a start-up that utilizes single-cell technologies and a multidisciplinary team of engineers, clinicians, and biologists to gain insights into complex diseases, such as cancer. The company's goal is to discover biomarkers and new actionable therapeutic targets to help physicians make better medical decisions and develop new drugs. The company was co-founded by Dr. Céline Vallot, expert in single-cell biology, Head of the Dynamics of Epigenetic Plasticity Team at Institut Curie. The company is currently scaling up, now processing large quantity of clinical samples on various diseases, developing ad hoc computational tools, as a core of its work.

In 2022, we publically released one of our algorithms (MAYA, github link to add), that will be published in a high profile peer-reviewed journal, Nature Communications (IF=17) in 2023 (in press, <https://doi.org/10.1101/2022.07.19.500633>).

Our data science environment :

You will join our data team. We work in direct collaboration with our lab that produces the raw data and our biology team that leads the clinical projects. To process the data, we run Python and R algorithms in AWS. The team already is expert in computational biology, data engineering, machine learning, and statistical analysis.

Missions:

At One Biosciences, you will be in charge of producing models that guide our biology team toward potential therapeutic targets.

Your primary responsibilities will be:

- Design, train, tune, and evaluate machine learning models
- Participate in the implementation of tools surrounding the development and usage of the models
- Deploy and maintain your models in production

Work will include dimension reduction, variational encoders, transfer learning, community detection, large graph modeling, and graph neural networks.

Knowledge of biology or genomics is not required. You will learn along the way.

Expected experience:

- Significant prior experience with graph algorithms
- Python data science stack and Jupyter Notebooks (Pandas, Scikit learn, Numpy, Networkx, etc.)
- 3 years minimum

Skills we value:



Technical:

- Knowledge of structural graph representation.
- Development and design of ontologies/taxonomies for knowledge databases
- Deployment to a production environment
- Experience with a graph neural network library like PyTorchGeo or DGL

Other:

- Ability to collaborate and work within a multi-disciplinary team including individuals without data science knowledge (e.g. biologists and physicians)
- Appreciation of the importance of model explainability in multi-disciplinary especially in the context of medical science
- Project management: ability to communicate proactively on training and guidance needs, to identify possible roadblocks and alert management with a solution-driven mindset, to share regularly progress and successes, to listen and act on feedbacks

Nice to have:

- Appeal for biology and genomics
- Experience with AWS

Recruitment process:

- Interview with Data Lead
- Interview with CEO
- Interview with scientific founder
- Interview with the Data team

The package will be competitive and will depend on experience and seniority and include a variable bonus based on concerted objectives completion

Contact:

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