Engineer in explainable AI for onco-immunology (F/M)

The hosting structure

The Institut Curie Research Center
Institut Curie is a major player in the research and fight against cancer. It consists of a Hospital Group and a Research Center of more than 1000 employees with a strong international representativeness. The objective of the Research Center is to develop basic research and to use the knowledge produced to improve the diagnosis, prognosis, and therapeutics of cancers as part of the continuum between basic research and innovation serving the patient.

Job description

Laboratory
The Waterfall lab (https://institut-curie.org/team/waterfall) in Inserm U830 at Institut Curie specializes in the application of cutting edge genomic and single cell technologies to understand how the immune system recognizes and responds to cancer development. We study diverse tumor types and clinical contexts, eager to make translational impacts in clinical care through our fundamental discoveries. The laboratory is also affiliated with the Translational Research department and is located in the hospital building on rue d’Ulm in central Paris.

Missions
In the context of a collaboration with Nicolas Perrin-Gilbert (https://perrin-isir.is in at ISIR/Sorbonne University, we are recruiting an engineer to contribute to the development of the XOMX tool suite (https://github.com/perrin-isir/xomx) for interpretable AI approaches to high throughput molecular profiling datasets in onco-immunology. The successful candidate will have active interactions with both teams as well as being embedded in a strong collaborative environment with wet-lab biologists and clinicians. Specific applications include cancer diagnosis from DNA/RNA profiling, single cell sequencing analysis, and immuno-peptidomics.

Candidate Profile

Skills required
We primarily expect candidates with strong computer science/quantitative science backgrounds and a motivation to learn onco-immunology.
- Experience in python is essential and additional languages (eg R) and pipeline managers (nextflow, snakemake, kedro) are welcome
- Experience with biological datasets (especially high throughput sequencing data) is a plus
- Skill to work on large computing clusters
- Self-motivated and able to collaborate with biologists and clinicians
- Presentation and communication of results.

Training and experience required
We expect a candidate with an M2 or engineering degree with equivalent experience.

All our opportunities are open to people with disabilities
Contract information

Type of contract: Fixed-term contract
Starting date: the position is open immediately
Duration: 24 months
Working time: full time
Remuneration: according to the current grids
Benefits: Collective catering, reimbursement of transportation fees up to 70%, supplementary health insurance
Location of the position: Paris
Reference: 2023-09-U830-CDDING01

Contact

Please send your CV, letter of motivation and 2 references, to Joshua Waterfall at joshua.waterfall@curie.fr.

Publication date: September 22nd, 2023
Deadline for application: October 31st, 2023

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