Machine Learning internship -Benchmark of radiological foundation models



Summary

Job description	<u>Link</u>
How to apply	Send an email with a CV to <u>careers@raidium.eu</u>
Location	Paris
Job type	Intern
Job title	Machine Learning internship - Benchmark of radiological foundation models
Salary	1600€/month
Start date	September 2024

The company:

Raidium develops a radiological foundation model as the "GPT" of radiology (<u>manifesto</u>). This new generation of AI will enable the building of an imaging biomarker factory for both clinical practice and research, tackling the complexity of precision medicine.

The team:

The founders:

Paul Herent is a radiologist, ancien interne des hôpitaux de Paris, Cogmaster (ENS) and PSL alumni, and has contributed to more than 9 publications focused on using deep learning in a radiological context. Paul conducted the first French medical thesis on the use of Al in radiology.

Pierre Manceron, a Centrale Paris engineer specialized in Applied Mathematics and Machine Learning with the MVA master, is a former team leader and manager of multi-million dollar projects. He specializes in the application of Machine Learning to industrial products.

The R&D team

The R&D team is composed of six ML engineers, educated at top French engineering schools with ML and Medical backgrounds (experience at Meta, Cardiologs, and Owkin, PhD in academic laboratories).

The internship - Benchmark of radiological foundation models

In this internship, you will work on benchmarking multiple foundation models on novel applications (called "downstream tasks") on radiological images, such as classification, segmentation or detection.

You will be working with the Raidium R&D team, alongside Raidium ML engineers and engineers.

This involves developing new models on top of foundation models, and applying them on radiological images.

You will work in direct supervision of Raidium's lead ML researchers and engineers.

In practice, you will work in Raidium's Parisian offices (in the Cochin Faculty) and have the opportunity to spend some afternoons at our companion center, where radiologists work with CT scans and MRIs!



You:

- Pursuing a MSc in Mathematics / Computer Science / Electrical Engineering;
- Experience with statistics / Machine Learning algorithms
- Experience with Deep Learning, Computer Vision algorithms and/or NLP algorithms
- Proficiency with Python
- Experience with Pytorch
- Willingness to work in the healthcare industry
- Authorization to work in France

Pluses (not exhaustive!):

- Experience in an agile work environment
- Publication history in top-tier Machine Learning or healthcare journals
- Experience in healthcare and/or with the manipulation of radiological images
- Experience with Self-Supervised Learning and Transformers
- Experience with HPC clusters and GPU-based infrastructures

Why joining us:

- Have a real and positive impact on people's lives
- Participate in a historical development of AI
- Be at the forefront of the next-generation of AI in radiology and medicine
- Be in direct contact with radiologists, in our partner center
- Publish in top-tier conferences and work in A-team of ML scientists
- Be among the very first employees of Raidium
- Work with a diverse team of engineers and medical doctors
- Competitive salary
- Access to unique datasets of a billion of radiological images, unique in the world
- Access to premium computing hardware, including cutting edge and professional GPUs

Applying

If you're interested, send an email with a CV to <u>careers@raidium.eu</u>!