JOB OFFER

Machine Learning Research Engineer/Scientist

Cenaero, located in Gosselies (Belgium), is a private non-profit applied research center providing to companies involved in a technology innovation process numerical simulation methods and tools to invent and design more competitive products. Our ambition is to be internationally recognized as a technology leader in modeling and numerical simulation, to be a strategic partner of large global industries as well as a real support to regional companies including innovative SMEs.

Cenaero provides expertise and engineering services in multidisciplinary simulation, design, and optimization in the fields of both mechanics (including fluid, structure, thermal, and acoustics) and electro-magnetics, manufacturing of metallic and composite structures as well as in analysis of in-service behavior of complex systems and life prediction. It also provides software through its massively parallel multi-physics platform Argo, its manufacturing process simulation and crack propagation platform Morfeo and its design space exploration and optimization platform Minamo. Cenaero operates the Tier-1 Walloon supercomputing infrastructure, named Lucia, of a capacity close to 4 PFlops on a mixed CPU and GPU architecture.

To support the expanding research activities on **Machine Learning**, Cenaero is currently looking for a **research engineer/scientist in machine/deep learning** (M/F). This permanent position is available immediately.

Position

The candidate will participate in cutting edge research in machine learning and develop solutions at the intersection of physics-based simulation and machine learning to push the limits of real-world system modeling. In this position, the candidate will work in close collaboration with scientific software developers and research engineers in various fields (Aerospace, Manufacturing, Energy, Buildings, …), with a direct connection to industrial needs and cases. The candidate is expected to both adequately exploit existing (open source) software tools and develop new tools and methods to reach the objectives. He/she will be part in the full development cycle, from design and coding to testing and documentation.

Profile

Required qualifications:

- MSc or PhD in Engineering, Applied Mathematics, Physics, Data Science, Computer Science, or demonstrated equivalent experience

- Minimum 2 years of hands-on experience developing machine learning technology, including neural networks architecture, algorithms, models, training and optimization, with a specific focus on physics/knowledge-informed neural networks and hybrid modeling combining physics and machine learning

- Experience with at least one major deep learning framework (TensorFlow, PyTorch, …)

- Good knowledge of deep learning theory (CNNs, RNNs, LSTMs, …)

- Experience in numerical simulation methods

- Strong programming skills (Python preferred)

- Good analytical and problem-solving skills

- Team player and proactive attitude

- Proven ability to work both independently and in interdisciplinary team/project-based environment

- Good communication skills (written and spoken)

- Fluent in French and in English

Additional qualifications

- Cross-platform experience (Linux/Windows)

Offer

Cenaero offers a position in growing and leading technological sectors, a direct relationship with their business actors and technical experts, a competitive salary package and a stimulating and dynamic work environment. The successful candidate will benefit from outstanding supercomputing capacity with a brand-new Tier-1 facility at regional level and the possibility to access one of the most powerful supercomputers in the world through the LUMI consortium, in which Belgium has a significant share.

Application procedure

Interested candidates should send a cover letter, quoting the reference number of the offer (BE-JO-2023-04) and a resume to rh_be-jo-2023-04@cenaero.be.