



JOB OFFER

Finite Element Software Development Researcher

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. Internationally recognized, in particular through its research partnership with Safran, Cenaero is mainly active in the aerospace (with an emphasis on turbomachinery), manufacturing, smart building & cities sectors.

Cenaero provides expertise and engineering services in multidisciplinary simulation, design and optimization in the fields of mechanics (fluid, structure, thermal and acoustics), manufacturing of metallic and composite structures as well as in analysis of in-service behavior of complex systems and life prediction.

Cenaero operates the Tier-1 Walloon supercomputing infrastructure with 14,000 computing cores (see tier1.cenaero.be for details). Cenaero will invest 10 M€ for the renewal of the infrastructure by the end of 2021.

To support the expanding research activities on manufacturing process modeling and design of metallic components, Cenaero is currently looking for a Finite Element Software Development Researcher (M/F). This permanent position is available immediately.

Position

The candidate will contribute to the development of Cenaero's finite element software Morfeo for manufacturing process modeling with a direct connection to industrial needs and applications. He/she will be part of the full development cycle from design and coding to testing and documentation following the development rules already in place.

Profile

Required qualifications

- PhD in engineering or demonstrated equivalent experience
- Advanced knowledge in multi-physics modeling and simulation for solid mechanics
- Proficiency in C++ object-oriented programming on Linux platform
- Experience in programming non linear finite element for structural applications
- Experience in collaborative programming for large and complex code
- Experience in parallel programming with OpenMP & MPI
- Hands on experience with various software performance and debugging tools
- Good analytical and problem solving skills
- Good communication skills (oral and written)
- Team player and proactive attitude
- Fluent in English (French is a plus)

Additional qualifications

- Knowledge of manufacturing process modeling of metallic part
- Cross-platform experience (Linux/Windows)
- Strong Algebra and Calculus skills
- Experience in GPGPU programming

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.

Application procedure

Interested candidates should send a cover letter, quoting the reference number of the offer (BE-JO-2021-009) and a resume to rh@cenaero.be.