Computational Chemist & Cheminformatics Scientist

Descrição da função

Key Targets of the Job:

- Develop and optimize computational workflows integrating quantum simulations, molecular descriptors, and predictive machine learning models
- Apply advanced cheminformatics and data-driven approaches for virtual screening, property prediction, and reaction mechanism analysis
- Design and implement automated pipelines for high-throughput quantum chemical calculations and machine learning model training
- Model and simulate complex chemical reaction mechanisms across diverse environments using quantum mechanical and ML-assisted approaches
- Analyze simulation results to extract molecular-level insights and support experimental design or product development
- Conduct comprehensive literature reviews and generate high-quality technical documentation, reports, and presentations
- Collaborate effectively within an interdisciplinary team of computational scientists, chemists, physicists, and materials engineers
- Support external collaborations, joint research projects, and technology scouting initiatives
- Demonstrate a willingness to travel occasionally for project meetings, conferences, and collaborative activities

Requisitos

- PhD in quantum chemistry, computational chemistry, cheminformatics, materials science, physics, or a closely related field (mandatory academic background)
- Proven hands-on experience with quantum chemistry methods (e.g., DFT, ab initio) and related software (e.g., Gaussian, ORCA, VASP, CP2K, DMol³)
- Strong background in cheminformatics, including experience with molecular representations and libraries such as RDKit and Open Babel
- Demonstrated ability to incorporate machine learning (e.g., scikit-learn, PyTorch, TensorFlow) into computational chemistry workflows
- Experience in modeling reaction mechanisms, energy landscapes, or catalytic processes at the atomic or molecular level - good to have
- Proficiency in Python (preferred), along with experience using scientific computing libraries such as NumPy, pandas, and ASE
- Familiarity with molecular dynamics tools (e.g., GROMACS, LAMMPS) is a plus
- Postdoctoral or several years of industrial experience in the field is highly preferred
- Excellent written and spoken English communication skills, with the ability to articulate complex technical concepts to diverse audiences

Identificação da vaga
REF86000O

Área funcional
Research and Development

Local
Lousado

Nível de liderança
Leading Self

Modalidade de trabalho
Onsite Job

Pessoa jurídica
Continental Mabor Indústria de Pneus S.A.

- Strong analytical thinking, creativity, and a proactive, solution-oriented approach to problem solving
- Ability to work independently and collaboratively within cross-functional and interdisciplinary teams
- Portuguese languages skills written and spoken is a plus

O que oferecemos

Integration in a challenging and international work environment, featured by the existence of state-of-the-art technologies
Local employment contract with attractive remuneration package and benefits
Continuous professional training and excellent possibilities of personal and professional development

Ready to drive with Continental? Take the first step and fill in the online application.

Quem somos

As one of the leading automotive suppliers worldwide, we develop solutions to fulfill people´s dreams of mobility on a daily basis. Driver safety, sustainability and industrialization of future technology are just some of our key fields where we already make a meaningful difference in the everyday life of people. Knowing our technology helps to make the world a better and safer place is what drives us.