Offer #2025-09055

Software Engineer within the Moose Team, focused on P16

Contract type : Fixed-term contract

Renewable contract : Yes

Level of qualifications required : Graduate degree or equivalent

Other valued qualifications : Engineering degree or Ph.D. in computer science, applied mathematics, numerical methods or related field.

Fonction : Support functions

Corps d'accueil : Ingénieur de Recherche (IR)

About the research centre or Inria department

The EVREF project team is dedicated to the continuous evolution of large software systems, offering innovative solutions for their maintenance, evolution, and reengineering. At the heart of this work is MOOSE, an advanced software platform dedicated to the analysis of complex software systems. It is built on a meta-model layer and has strong academic and industrial recognition.

The P16 project, supported by France 2030, aims to accelerate the industrialization of AI software components while promoting their dissemination. It focuses on data interoperability, automation of data processing, and the training and execution of AI models.

The proposed position aims to strengthen synergies between Moose and P16 by integrating the specific requirements related to the evaluation of software libraries developed within P16, while leveraging Moose’s advanced capabilities and extending them to effectively support the work of data scientists.

Assignment

- **Development and Integration for P16:**
  - Develop software quality rules tailored to the software integrated into P16.
  - Design a rule engine to evaluate software libraries.
  - Explore the definition of a quality model for the data scientist profession, taking into account the diversity of methods used.
- **Contributions to Moose:**
  - Optimize support for Python codebases within Moose.

    - Participate in the design and development of new Moose-based approaches to address specific industrial needs related to the data scientist profession.
- **Scientific and Technical Support:**
    - Contribute to experiments conducted by the EVREF team for the development of prototypes.
    - Participate in documentation, scientific publications, and user training.
    - Monitor technological advances in innovative software engineering approaches dedicated to development.

Main activities

- Design and development of scientific software tools.
- Identification of needs and translation into robust technical solutions.
- Writing and presenting clear and precise technical documentation.
- Participation in scientific experiments, with contributions to associated publications.
- Active technology watch: exploration of new tools, frameworks, and methodologies related to software engineering and AI.
- Occasional training of developers and users on developed tools.
- Participation in thematic networks to share best practices in software engineering.

Skills

- Solid experience in software development (Python required, C++ and Java appreciated).
- Experience with Pharo.
- Experience in metaprogramming and metamodeling.
- In-depth knowledge of software quality assessment processes.
- Ability to translate industrial and scientific needs into robust technological solutions.
- Proven skills in technology watch: identifying relevant innovations for software engineering or data science.
- Excellent writing skills (technical documentation, scientific publications) in French and English.
- Ability to collaborate with various profiles (scientists, developers, industry professionals) in an interdisciplinary environment.
- Relevant experience in similar projects, preferably in the context of artificial intelligence and data research.

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children,

moving home, etc.)
- Possibility of teleworking and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Remuneration

Selon profil

General Information

- **Town/city :** Lille
- **Inria Center :** Siège
- **Starting date :** 2025-09-01
- **Duration of contract :** 12 months
- **Deadline to apply :** 2025-07-31

Contacts

- **Inria Team :** Prog-IA (ADPnum)
- **Recruiter :**
  Kraidache Khallihanna / khallihanna.kraidache@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

Warning : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Instruction to apply

Defence Security :
This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST).Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012

relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

Recruitment Policy :
As part of its diversity policy, all Inria positions are accessible to people with disabilities.