Offer #2024-08183

Software engineer in quantum simulation

Contract type : Fixed-term contract

Level of qualifications required : Graduate degree or equivalent

Fonction : Temporary scientific engineer

Level of experience : Recently graduated

About the research centre or Inria department

The Inria Saclay-Île-de-France Research Centre was established in 2008. It has developed as part of the Saclay site in partnership with **Paris-Saclay University** and with the **Institut Polytechnique de Paris** .

The centre has **40 project teams** , 32 of which operate jointly with Paris-Saclay University and the Institut Polytechnique de Paris; Its activities occupy over 600 people, scientists and research and innovation support staff, including 44 different nationalities.

Context

Ce travail fait partie du projet national HQI sur l'informatique quantique (https://www.hqi.fr/) qui vise à permettre à la communauté de recherche académique et industrielle française d'exploiter les installations de calcul pour les algorithmes hybrides classiques-quantiques.

Assignment

- Ce travail est lié à la mise en œuvre d'un logiciel de simulation quantique
- Le développement comprendra l'analyse des performances et l'optimisation du code pour les algorithmes hybrides quantiques-classiques
- Il nécessitera une analyse comparative du code développé et une comparaison avec d'autres algorithmes de pointe.

Main activities

Principales activités :

- Développer des codes parallèles
- Effectuer des recherches
- Présenter des travaux lors de séminaires et de colloques

Activités supplémentaires :

- Participer à des réunions et à des séminaires

Skills

Une bonne pratique de l'anglais est souhaitable

Bonnes aptitudes à la communication et à la présentation

Benefits package

Subsidized catering
Public transport partially reimbursed
Vacations: 7 weeks' annual leave + 10 days' RTT (full-time basis) + possibility of exceptional leave (e.g. sick children, moving house)
Possibility of telecommuting and flexible working hours
Professional equipment available (videoconferencing, loan of computer equipment, etc.)
Social, cultural and sports benefits (Association de gestion des œuvres sociales d'Inria)
Access to professional training
Social security benefits

Remuneration

Regarding professional experience.

General Information

- **Theme/Domain :** Distributed and High Performance Computing
  Scientific computing (BAP E)
- **Town/city :** Palaiseau
- **Inria Center :** [Centre Inria de Saclay](#)
- **Starting date :** 2024-11-01
- **Duration of contract :** 12 months
- **Deadline to apply :** 2024-10-31

Contacts

- **Inria Team :** [QUACS](#)
- **Recruiter :**
  Baboulin Marc / marc.baboulin@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.

The keys to success

- Expérience des algorithmes quantiques et des bibliothèques de simulation

- Expérience en C++ et en programmation parallèle

> **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

To apply, please provide :

- CV
- Cover letter

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.