Offer #2024-07696

Research Engineer - Automatic differentiation and control

Contract type : Fixed-term contract

Level of qualifications required : PhD or equivalent

Fonction : Temporary scientific engineer

About the research centre or Inria department

The Inria centre at Université Côte d'Azur includes 37 research teams and 8 support services. The centre's staff (about 500 people) is made up of scientists of di?erent nationalities, engineers, technicians and administrative staff. The teams are mainly located on the university campuses of Sophia Antipolis and Nice as well as Montpellier, in close collaboration with research and higher education laboratories and establishments (Université Côte d'Azur, CNRS, INRAE, INSERM ...), but also with the regiona economic players.
With a presence in the fields of computational neuroscience and biology, data science and modeling, software engineering and certification, as well as collaborative robotics, the Inria Centre at Université Côte d'Azur is a major player in terms of scientific excellence through its results and collaborations at both European and international levels.

Context

Position funded by the project PDE-AI of PEPR IA

https://pde-ai.math.cnrs.fr

Assignment

For a better knowledge of the proposed research subject :

A state of the art, bibliography and scientific references are available at the following URL:

https://pde-ai.math.cnrs.fr/nice/postdoc-nice-2

Collaboration :

The recruited person will work in collaboration with Jean-Baptiste Caillau, Thibaud Kloczko, Laurent Hascoët and Jean-Luc Bouchot.

Main activities

Main activities (5 maximum) :

- bibliographic study of state of the art AD techniques in optimisation and control
- develop and benchmark new AD approaches, notably in the framework of the Julia language
- present the results in scientific conferences / papers

Skills

Technical skills and level required : scientific software dev, proficiency with collaborative tools (git)

Languages : Julia, C, fortran

Relational skills : work in team

Other valued appreciated :

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
- Contribution to mutual insurance (subject to conditions)

Remuneration

Location: Sophia Antipolis, France

From 2692 € gross monthly (according to degree and experience)

General Information

- **Theme/Domain :** Optimization and control of dynamic systems
  Instrumentation et expérimentation (BAP E)
- **Town/city :** Sophia Antipolis
- **Inria Center :** Centre Inria d'Université Côte d'Azur
- **Starting date :** 2025-06-01
- **Duration of contract :** 1 year, 6 months
- **Deadline to apply :** 2025-06-30

Contacts

- **Inria Team :** MCTAO
- **Recruiter :**
  Caillau Jean-baptiste / jean-baptiste.caillau@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

A strong background in applied math and scientific software development is required. A good knowledge of AD, optimisation codes and numerical linear algebra would be an excellent asset for this position.

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.