Offer #2021-03376

Software engineer, reinforcement learning

Contract type : Fixed-term contract

Level of qualifications required : Graduate degree or equivalent

Other valued qualifications : doctorat

Fonction : Temporary scientific engineer

Level of experience : Up to 3 years

About the research centre or Inria department

The Inria Lille - Nord Europe Research Centre was founded in 2008 and employs a staff of 320, including 280 scientists working in fourteen research teams. Recognised for its outstanding contribution to the socio-economic development of the Hauts-De-France région, the Inria Lille - Nord Europe Research Centre undertakes research in the field of computer science in collaboration with a range of academic, institutional and industrial partners.

The strategy of the Centre is to develop an internationally renowned centre of excellence with a significant impact on the City of Lille and its surrounding area. It works to achieve this by pursuing a range of ambitious research projects in such fields of computer science as the intelligence of data and adaptive software systems. Building on the synergies between research and industry, Inria is a major contributor to skills and technology transfer in the field of computer science.

Context

This job offer is part of the Artificial Intelligence chair held by O-A. Maillard and Ph. Preux, funded by public institutions (MEL, I-Site ULNE, Inria, Université de Lille). This research chair is part of the Scool team-project at Inria, and UMR CRIStAL (CNRS, University of Lille, France).

This chair focusses on the study of algorithms for sequential decision making under uncertainty, in particular reinforcement learning.

Scool is a research group currently made of about 30 people, among which 20 Ph.D. students, 2 post-docs, and 2 engineers.

The person being recruited will be offered training in tools, technics, technologies related to software development and its missions.

Assignment

Missions:

Design, develop, possibly maintain software programs that are related to the research activities of this chair. Design and perform experiments with software.

Developments will be performed in Linux, in an open source spirit. Languages are python, C++, maybe C, and maybe other languges if necessary.

Experiments will be performed on local and national computing infrastructures (such as grid5000 and Jean Zay).

More information about our research activities may be gained from visiting Scool website https://team.inria.f/scool, as well as the personal pages of O-A. Maillard and Ph. Preux.

Main activities

Main activities:

- design, development, test, maintenance of software programs
- design, and perform experiments

- self-training (guided by the supervisors)

- interactions with the supervisors

Other activities:

- oral and written presentations

- writing reports, documentation, ...

Skills

Required technical skills: strong background in computer science, in particular in algorithms, data structures, software development, programming in python/C++, in a Linux/Ubuntu environment.

Knowledge in machine learning, or neural networks is an asset. Skills in statistics, or optimization too.

Language: fluency in English.

Relational skills: ability to work within a group of people, listen to others, present one's work, discuss it and be able to learn from others.

While performing the assigned tasks, a certain amount of autonomy is welcome, if not necessary.

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

According to profile

General Information

- **Theme/Domain :** Optimization, machine learning and statistical methods
  Statistics (Big data) (BAP E)
- **Town/city :** Villeneuve d'Ascq
- **Inria Center :** Centre Inria de l'Université de Lille
- **Starting date :** 2023-01-01
- **Duration of contract :** 2 years
- **Deadline to apply :** 2022-12-31

Contacts

- **Inria Team :** SCOOL
- **Recruiter :**
  Preux Philippe / Philippe.Preux@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

The person being recruited will work in a research group, that is an environment in which knwoledge is being built, questions are much more numerous than clear answers. The recruitee will bring her skills to this construction process, supporting researchers in their experiments: design and development of experiments to test hypothesis, assesment of ideas, ...

The recuitee should be curious, reactive, open minded to ideas and others. The recruitee should feel at ease in a dynamic scientific environment; love of learning, and listening to others are key qualities to succeed in this mission.

A Ph.D. in machine learning is a real asset; otherwise, an internship in a research lab is yet an asset.

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.