

2021-03413 - Post-Doctoral Research Visit F/M Reinforcement learning

Type de contrat : CDD

Niveau de diplôme exigé : Thèse ou équivalent

Fonction : Post-Doctorant

A propos du centre ou de la direction fonctionnelle

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.

Contexte et atouts du poste

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). Scool has activities ranging from pure research to collaborations with and transfer to companies or other users of RL.

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. This job offer is one among a dozen other post-doc, engineer, and Ph.D. student positions open in 2021 in Scool.

The recruitee will mainly work with O-A. Maillard and Ph. Preux, but beyond that, he/she will be able to collaborate with any member of Scool. Support for traveling e.g. to conferences or other scientific meetings is provided.

Mission confiée

The goal of this post-doc is to contribute to the state of the art of the research in reinforcement learning. The work will be essentially at the fundamental level: design of new algorithms, analysis of the behavior of algorithms, implementation and experimental study and assesment, ...

For more information regarding Scool research interests, please visit our website <https://team.inria.fr/scool>.

Topics of importance in Scool today are: non stationary RL environments, risk-aware RL, RL without a simulator, RL with scarcity of training data, applications in health, sustainable development, and e-learning.

Aside research, the recruitee may take part of other Scool activities such the organization of scientific events (workshop, summer school, tutorial, ...).

Principales activités

The recruitee will perform standard research activities, involving reading scientific publications, proposing new ideas related to the project, arguing, developing them, presenting them informally to partners, and also through seminars and research group meetings, writing scientific publications and submit them to top conference and journals of the field.

Compétences

Technical skills and level required: proficiency in python, pytorch, machine learning packages. Skills in C/C++ will also be appreciated.

Everything will be implemented in Linux/Ubuntu, in an open source software state of mind.

Ability to work, interact, and collaborate with other researchers (in English)

Avantages

- 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 (after 6 months of employment) 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

Informations générales

- **Thème/Domaine** : Optimisation, apprentissage et méthodes statistiques Statistiques (Big data) (BAP E)
- **Ville** : Villeneuve d'Ascq
- **Centre Inria** : **CRI Lille - Nord Europe**
- **Date de prise de fonction souhaitée** : 2022-02-01
- **Durée de contrat** : 2 ans
- **Date limite pour postuler** : 2022-03-31

Contacts

- **Equipe Inria** : **SCOOOL**
- **Recruteur** :
Preux Philippe / Philippe.Preux@inria.fr

A propos d'Inria

Inria est l'institut national de recherche dédié aux sciences et technologies du numérique. Il emploie 2600 personnes. Ses 200 équipes-projets agiles, en général communes avec des partenaires académiques, impliquent plus de 3500 scientifiques pour relever les défis du numérique, souvent à l'interface d'autres disciplines. L'institut fait appel à de nombreux talents dans plus d'une quarantaine de métiers différents. 900 personnels d'appui à la recherche et à l'innovation contribuent à faire émerger et grandir des projets scientifiques ou entrepreneuriaux qui impactent le monde. Inria travaille avec de nombreuses entreprises et a accompagné la création de plus de 180 start-up. L'institut s'efforce ainsi de répondre aux enjeux de la transformation numérique de la science, de la société et de l'économie.

L'essentiel pour réussir

You want to push forward the limits of knowledge in the field of reinforcement learning.

You are hard working, dedicated to your research.

You love working on fundamental ideas and demonstrating them experimentally, and then reporting your work in well-polished publications.

You really enjoy working with other researchers, sharing and discussing ideas.

You are rigorous, serious and reliable in your work.

Consignes pour postuler

CV + application letter + recommendation letters + List of publications

Sécurité défense :

Ce poste est susceptible d'être affecté dans une zone à régime restrictif (ZRR), telle que définie dans le décret n°2011-1425 relatif à la protection du potentiel scientifique et technique de la nation (PPST). L'autorisation d'accès à une zone est délivrée par le chef d'établissement, après avis ministériel favorable, tel que défini dans l'arrêté du 03 juillet 2012, relatif à la PPST. Un avis ministériel défavorable pour un poste affecté dans une ZRR aurait pour conséquence l'annulation du recrutement.

Politique de recrutement :

Dans le cadre de sa politique diversité, tous les postes Inria sont accessibles aux personnes en situation de handicap.

Rémunération

Gross monthly salary (before taxes) : 2 653 €

Attention: Les candidatures doivent être déposées en ligne sur le site Inria. Le traitement des candidatures adressées par d'autres canaux n'est pas garanti.