Offre n°2023-06808

Streamlining open medical data sharing and reuse in Europe

Le descriptif de l’offre ci-dessous est en Anglais

Type de contrat : CDD
Niveau de diplôme exigé : Bac + 5 ou équivalent
Fonction : Ingénieur scientifique contractuel
Niveau d'expérience souhaité : De 3 à 5 ans

A propos du centre ou de la direction fonctionnelle

The Inria Centre at Rennes University is one of Inria's eight centres and has more than thirty research teams. The Inria Centre is a major and recognized player in the field of digital sciences. It is at the heart of a rich R&D and innovation ecosystem: highly innovative PMEs, large industrial groups, competitiveness clusters, research and higher education players, laboratories of excellence, technological research institute, etc.

Contexte et atouts du poste

Applications are invited for a research engineer position with Dr. Camille Maumet in the Empenn team at INRIA. This position is part of FLI-IAM, i.e. the “Information Analysis and Management” (IAM) node of the national infrastructure “France Life Imaging (FLI)”.

Open science practices are being increasingly supported by a variety of stakeholders in scientific research. UNESCO defines open science around 3 key features including: "Encourage collaboration and information-sharing to benefit science and society". In particular, opening up scientific data is very central to open science as it makes it possible to reuse dataset within scientific communities effectively leading to larger sample sizes and the possibility to build more generalizable discoveries. In the European landscape, a number of initiatives have emerged to streamline sharing of medical image datasets. The focus of this work will be to interoperate the FLI-IAM infrastructure -- and specifically the Shanoir imaging data management system -- to other European open science efforts towards building integrated easy-to-use databases and tools for open data sharing and reuse.

Mission confiée

The successful applicant will work with European initiatives to interconnect infrastructure and tools for open medical imaging data in order to streamline the process of accessing, analysing and publishing results on public medical imaging datasets. To get started, the goal will be to work closely with datalad (distributed data management - [https://www.datalad.org/](https://www.datalad.org/)) and Openneuro-PET (EU-GDPR compliant PET data sharing [https://openneuropet.github.io/](https://openneuropet.github.io/)) and connect those to the Shanoir imaging data management system ([https://shanoir.irisa.fr/shanoir-ng/welcome](https://shanoir.irisa.fr/shanoir-ng/welcome)). The research engineer will work closely with Michael Kain who is the technical lead of the FLI-IAM infrastructure.

We are looking for an excellent software engineer with a strong interest in working in medical imaging research, and ideally with prior experience in a research setting. The successful candidate must have a background in computer science or a related field. Previous experience in open source and/or working with open communities will be highly valued.

The fellow will join the Empenn team at INRIA Rennes, a group of circa 30 people working on neuroimaging applications and methods with a diverse set of expertise ranging from computer science and maths to medicine. The Empenn team is part of INRIA Rennes, a research centre of about 800 members focusing on all aspects of computer science research.

Principales activités

The goal of the research engineer will be to develop new tools to interconnect existing European infrastructure. To achieve this aim, the engineer will:

- Learn about European medical data sharing tools and infrastructure such as Shanoir, datalad and Openneuro-PET
- Learn about existing standards to share and exchange medical imaging data
- Develop tools to interconnect platforms in order to make sharing and reusing datasets more
efficient
- Contribute to the Shanoir codebase to share those tools
- Exchange with users to learn about their needs in terms of data reuse
- Participate in the publicization of the project, e.g. by participating in Brainhack hackathons.

Compétences

Essential requirements

- Master/Engineering degree in computer science, data science or a related field.
- Proficient in software development.
- In-depth experience of software project management including version control (git + GitHub/gitlab), continuous integration, roadmapping, managing issues, etc.
- Well-organised.
- Strong written communication skills in English.
- Ability to work well in a team and exchange and share ideas with other members.
- Strong enthusiasm to “work open”, i.e. adopt an agile approach in which the code is made available publicly from its inception and gradually improved. This approach also means working in collaboration with the community to take into account their feedback and integrate contributions.
- Ability to work well with people from different fields (computer science, medical imaging experts, etc.) and levels of seniority.

Different levels of experience can be considered for this position. Salary will be commensurate with experience as per the INRIA salary grids. Ideally, we are looking for experienced applicants (>5 years) but will consider applicants with less experience if they are an excellent fit for the position.

Desirable

- Prior participation in research projects.
- Prior experience with processing of neuroimaging or medical data.
- Active in the open source community or with open communities

For more information

Informal inquiries can be sent to Dr. Camille Maumet (camille.maumet@inria.fr).

General information on INRIA and on the Empenn team are available on the respective websites: https://www.inria.fr/fr https://team.inria.fr/empenn/

Avantages

- Subsidized meals
- Partial reimbursement of public transport costs
- Possibility of teleworking (90 days per year) and flexible organization of working hours
- Partial payment of insurance costs

Rémunération

Monthly gross salary from 2 695 euros according to diploma and experience

Informations générales

- Thème/Domaine : Neurosciences et médecine numériques
- Ingénierie logicielle (BAP E)
- Ville : Rennes
- Centre Inria : Centre Inria de l'Université de Rennes
- Date de prise de fonction souhaitée : 2023-12-01
- Durée de contrat : 1 an
- Date limite pour postuler : 2023-11-12

Contacts

- Équipe Inria : EMPENN
- Recruteur : Maumet Camille / camille.maumet@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 215 équipes-projets agiles, en général communes avec des partenaires académiques, impliquent plus de 3900 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 200 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.

**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.

### Consignes pour postuler

Please submit online : your resume, cover letter and letters of recommendation eventually

**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.