



Offre n°2024-08439

Software engineer for AI in digital healthcare R&D

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

Type de contrat : CDD

Contrat renouvelable : Oui

Niveau de diplôme exigé : Bac + 5 ou équivalent

Autre diplôme apprécié : PhD, Post-Doc

Fonction : Ingénieur scientifique contractuel

Niveau d'expérience souhaité : De 3 à 5 ans

A propos du centre ou de la direction fonctionnelle

The Inria center at Université Côte d'Azur includes 42 research teams and 9 support services. The center's staff (about 500 people) is made up of scientists of different 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 regional 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.

Contexte et atouts du poste

Fed-BioMed is an open-source federated learning framework for multi-centric, hospital-based medical applications. It focuses on security, access and interoperability with medical data, federated data preprocessing and harmonization, and lifecycle control by the hospital. Fed-BioMed creates a community of clinical, industry and academic partners fostering the adoption of collaborative learning in real-world medical applications. Fed-BioMed project is supported by Inria.

The EPIONE research team contributes to the development of the digital patient (e-patient) for digital medicine (e-medicine). The e-medicine (or digital medicine) is defined as IT tools applied to the digital patient to assist physicians and surgeons in their medical practice, to evaluate diagnosis/prognosis and to plan, monitor and evaluate therapy.

The Service d'Expérimentation et de Développement (SED) of the Centre Inria d'Université Côte d'Azur leads, coordinates and contributes to Inria development and experimentation activities, working with the scientists on technological actions. The SED from all Inria centers form a network of knowledge and expertise that coordinates to capitalize on the technologies developed in the institute and to develop the hardware and software infrastructures needed for research at Inria.

Mission confiée

This position is attached to the SED team, and will be working in collaboration with the EPIONE research team.

As a developer in a R&D environment, you'll contribute to the development of the core open-source software of Fed-BioMed.

You will be integrated as a member of the Fed-BioMed core development team, working with Agile methodology inspired from Scrum.

Your goals will be:

- The development and the general maintenance of the core library and the life of the project

- The development of the related prototypes and functionalities integrating the technological ideas proposed by the researchers

The position is based in the campus Inria d'Université Côte d'Azur at the heart of Sophia Antipolis technology park.

Principales activités

Your main tasks will be:

- Develop new functionalities, design and implement prototypes
- Review contributions coming from other team members and the community
- Work closely with researchers to convert scientific proof of concepts into production ready code
- Participate to the general maintenance of the framework
- Document the software
- Collaborate with academic, clinical and industrial partners
- Support open source community users
- Join workshops and summits to present and teach the framework

What you will gain in this position:

- Join a project having a positive impact on society, contributing to shape the future of healthcare
- Develop state of the art skills, methods and techniques in software development and machine learning
- Be a player in an open-minded environment
- Work with academic researchers and clinicians, and convert research in real world applications
- Join a young, international, motivated and friendly team

Compétences

Experience and training:

- Strong training and experience in software engineering
- Knowledge in one or more of the following fields: Data science / Statistics, Machine Learning, Artificial Intelligence, Optimization
- Knowledge in security for machine learning or computer networks is appreciated
- Experience working in team preferably using Agile methodology is appreciated
- Knowledge in DevOps is appreciated, preferably under Linux
- Experience contributing to an open source project is appreciated
- Experience in an R&D environment is a plus
- Knowledge or experience in digital healthcare is a plus

Skills / know-how:

- Programming languages: Python and at least one other language
- Database: SQL or noSQL
- One or more of the following tools: version management, continuous integration, test driven development, packaging and deployment (git, github, conda, docker)
- Development in one API services (e.g. RESTful, Websockets, RPC) or message broker (e.g. Kafka) technology is appreciated
- Data processing (e.g. numpy, pandas) and data pipelines

- Basic use of Machine Learning libraries (e.g PyTorch, TensorFlow, Jax, scikit-learn)
- Good writing and communication skills, in technical and scientific English
- Agile methodology is appreciated

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
- Contribution to mutual insurance (subject to conditions)

Rémunération

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

Informations générales

- **Ville** : Sophia Antipolis
- **Centre Inria** : [Centre Inria d'Université Côte d'Azur](#)
- **Date de prise de fonction souhaitée** : 2025-02-01
- **Durée de contrat** : 2 ans
- **Date limite pour postuler** : 2025-01-31

Contacts

- **Équipe Inria** : SED-SOP (DGD-I)
- **Recruteur** :
Vesin Marc / Marc.Vesin@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.

L'essentiel pour réussir

This position is intended for engineers in the field of computer sciences with a proven track of developer (2+ years experience preferred) and a strong attraction for R&D and/or digital healthcare.

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

Applications must be submitted online on the Inria website. Collecting applications by other channels is not guaranteed.

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.