2023-06534 - Senior software development research engineer in Data Sciences and Machine Learning

Contract type: Fixed-term contract
Renewable contract: Yes
Level of qualifications required: Graduate degree or equivalent
Other valued qualifications: PhD, Post-Doc
Function: Temporary scientific engineer
Level of experience: From 3 to 5 years

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 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, INRIA, 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.

Assignment

As a research engineer, you will be attached to Experimentation and Development Team (SDE) and to EPINE Research Group. You will work on the development of the project Fed-BioMed. This project is the result of the synergy between research and engineering teams for the development of an open framework for federated learning in healthcare.

The project is in collaboration with an international network of clinical collaborators and hospitals, that will provide clinical use cases for the translation of the development work into the real world. The project is based on Agile development methods, and is supported by the French National Plan Intelligence Artificial Intelligence (AI).

At the end of this experience, you will have consolidated a broad range skills in software engineering with application to a unique scientific context, through the deployment of top-notch Data Science paradigm. This experience will allow you to consider careers as an engineer in research and development in national organisations (Inria, INRAE, CNRS, CEA), industrial research centers, SMEs and digital start-ups.

Main activities

The engineer will be mainly involved in the software developments within the framework of the project Fed-BioMed. She / He will also participate in the design and development of highly innovative scientific software platforms for scientific research and experimentation activities.

The engineer will also work on the co-development of prototype software integrating the technological core ideas proposed by the researchers. The engineer will work within a software development team using agile methodologies (mixed Scrum-Extreme Programming method), in a context where she / he will be able to constantly improve her / his skills.

Skills

This position is intended for PhD, Post-docs or Engineers in the field of computer sciences (IT, image processing, robotics, bioinformatics, automation, simulation and high-performance computing), with a demonstrable background in machine learning and AI-related topics.

Experience and training required

- Training in software development / software engineering / software design
- Solid experience in software development
- Solid training and / or experience in one or more of the following fields: Data science / Statistics, Machine Learning, Artificial Intelligence, Optimization
- Experience in project development, preferably using Agile methodology
- Experience in Linux development
- Training and / or experience in one or more of the following fields: Data science / Statistics, Machine Learning, Artificial Intelligence, Optimization
- Knowledge in medical data analysis
- Knowledge in database management
- Knowledge / experience in an R&D environment (public or private sector)

Skills / know-how

- Programming languages: Python
- Experience with Machine Learning libraries (e.g. PyTorch, TensorFlow, Keras, Julia)
- Know how to implement the methods and tools underlying the version control, continuous integration and test driven development in a context of agile methods
- Knowledge of agile methodology
- Good writing and communication skills

General Information

- Theme/Domain: Computational Neuroscience and Medicine
- Software Experimental platforms (BAP)
- Town/city: Sophia Antipolis
- Inria Center: Centre Inria d’Université Côte d’Azur
- Starting date: 2023-11-01
- Duration of contract: 2 years
- Deadline to apply: 2023-08-03

Contacts

- Inria Team: EPINE (DGD-I)
- Recruiter: Lorenzo Marco / Marco.Lorenzi@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

With a scientific background, you have an appetite for scientific fields and digital sciences, with strong experience in the fields of AI. Motivation, curiosity and the desire to learn is the main expected quality. Your ability to work in a team, to be proactive and to motivate a team will also be very important.

Instruction to apply

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.
- Good level of technical and scientific English, both oral and written
- Knowledge in one or more of the following tools is also a plus
  - version management, continuous integration, packaging and deployment (git, jenkins, cpack, conda, docker)

**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**

From 2652 € gross monthly (according to degree and experience)