Offer #2025-08939

Engineer in methodological evaluation of digital twins (H/F)

Contract type : Fixed-term contract

Renewable contract : Yes

Level of qualifications required : PhD or equivalent

Fonction : Temporary scientific engineer

Level of experience : Up to 3 years

Context

HeKA (https://team.inria.fr/heka/) is a multidisciplinary research team specializing in biomedical informatics, biostatistics, and applied mathematics for digital health. The team focuses on developing learning health systems that leverage multimodal health data (e.g., electronic health records, clinical trials) to improve precision medicine and healthcare quality. HeKA collaborates with leading institutions across Europe to advance digital innovations in healthcare.

The HeKA team at Inria, Inserm, and University Paris Cité is seeking a motivated researcher to join the MediTwin project. The objective of the MediTwin project is to support the digital transformation of medical practices through a European and sovereign innovation platform, an ecosystem of users and service provider partners for medical decision support. It is based on the virtualization of organs and physio-pathological systems using medical data to improve the efficiency of care and the effectiveness and safety of medical practices, based on the ability to predict the evolution and success of different possible interventions. The MediTwin project is structured around three founding members: Dassault Systèmes, INRIA and IHU France.

Assignment

The recruited researcher will focus on the methodological evaluation of digital twins. In particular, he/she will develop Bayesian statistical methods for evaluating learning systems over time.

Main activities

Main activities:

- Development of statistical models;
- Coding and explaining results;
- Bibliography search of existing approaches;
- Articles writing;
- Oral communications and poster at conferences.

Skills

Technical skills and level required :

- Advance knowledge in mathematics (pure or applied);
- Proficiency in statistical software or programming languages like R or Python.

Languages :

- Fluent in French and English (B2 lever or higher).

Relational skills :

- Strong team collaboration skills.

Other valued appreciated :

- Ability to work independently while contributing to a multidisciplinary team.

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

General Information

- **Theme/Domain :** Optimization, machine learning and statistical methods Statistics (Big data) (BAP E)
- **Town/city :** Paris
- **Inria Center :** Centre Inria de Paris
- **Starting date :** 2025-08-01
- **Duration of contract :** 2 years
- **Deadline to apply :** 2025-07-01

Contacts

- **Inria Team :** HEKA
- **Recruiter :**
  Boulet Sandrine / sandrine.boulet@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.

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.