Offer #2024-08001

Post-Doctoral Research Visit F/M Anonymization of a dataset based on a questionnaire survey

Contract type : Fixed-term contract

Renewable contract : Yes

Level of qualifications required : PhD or equivalent

Fonction : Post-Doctoral Research Visit

About the research centre or Inria department

The Inria Saclay-Île-de-France Research Centre was established in 2008. It has developed as part of the Saclay site in partnership with **Paris-Saclay University** and with the **Institut Polytechnique de Paris** .

The centre has **40 project teams**, 32 of which operate jointly with Paris-Saclay University and the Institut Polytechnique de Paris; Its activities occupy over 600 people, scientists and research and innovation support staff, including 44 different nationalities.

Context

The Comete project team at the Inria Saclay Center specializes in security and privacy protection and has sixteen researchers (https://www.inria.fr/fr/comete). The team studies concepts emerging from the modern era of computing. Security and privacy protection are among the fundamental concerns that arise in this context: the frequent interaction between users and electronic devices, and the continuous connection between these devices and the Internet, offer malicious agents the possibility of collecting and storing a huge amount of information without users even being aware of it. In addition to security issues, issues of correctness, robustness, and reliability are made more difficult by the complexity of modern systems because they are highly concurrent and distributed. Despite being based on impressive engineering technologies, they are still prone to faulty behavior due to errors in software design. To address these challenges, the team studies formal frameworks for specifying these systems, theories for defining desired correctness and security properties, and methods and techniques for proving that a system satisfies these properties.

Assignment

The main mission of the recruited person will be to develop a method for the creation of an anonymous file based on a questionnaire survey in the social sciences and to implement it. This work will require a bibliographic review of methods in the field, and the comparison of several of these methods and will result in the publication of one or more scientific documents on the method chosen. The program can then be developed for other surveys for which training is planned, based on an anonymous survey file.

Main activities

An analysis of the risks linked to the incomplete anonymization of certain files and an analysis of the pseudonymization rules used could lead to the assessment of risks and the drafting of a guide to good practices, in conjunction with other producers of pseudonymized data.

Skills

- PhD in Computer Science on topics that require expertise in anonymization techniques.
- Knowledge of data anonymization methodology;
- Knowledge of methods for analyzing re-identification risk and associated inference risks, knowledge of measures of data usefulness for statistical analyses;
- Practical knowledge of data analysis languages (R, Python, C++) and database management software (MySQL, etc.);
- Ability to write scientific papers;
- Ability to monitor methodologies;
- Rigor, good organization, sense of priorities, autonomy;
- Mathematical skills;
- Teamwork skills ;
- Very good level in written and oral English ;
- Capability to work in a team.

Other valued appreciated :

Knowledge of the GDPR and the legal context, and work experience in national and international research teams, particularly within the framework of scientific research, would be appreciated.

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

Remuneration

2788€ gross/month

General Information

- **Theme/Domain :** Security and Confidentiality
  Statistics (Big data) (BAP E)
- **Town/city :** Palaiseau
- **Inria Center :** [Centre Inria de Saclay](#)
- **Starting date :** 2025-01-01
- **Duration of contract :** 6 months
- **Deadline to apply :** 2024-11-30

Contacts

- **Inria Team :** [COMETE](#)
- **Recruiter :**
  Palamidessi Catuscia / Catuscia.Palamidessi@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.

> **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.

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.