General Information

- **Theme/Domain**: Distributed programming and Software engineering
- **Instrumentation et expérimentation (BAP C)**
- **Town/City**: Sophia Antipolis - Méditerranée
- **Starting date**: 2018-12-01
- **Duration of contract**: 3 years
- **Deadline to apply**: 2018-09-03

Contacts

- **Inria Team**: INDES
- **Recruiter**: natalia.bielova@inria.fr

About Inria

Inria, the French National Institute for computer science and applied mathematics, promotes “scientific excellence for technology transfer and society”. Graduates from the world’s top universities, Inria’s 2,700 employees rise to the challenges of digital sciences. With its open, agile model, Inria is able to explore original approaches with its partners in industry and academia and provide an efficient response to the multidisciplinary and application challenges of the digital transformation. Inria is the source of many innovations that add value and create jobs.

Conditions for application

**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 restricted. This position will not be available to foreigners. As a result, positions will be awarded 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.

**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.

Assignment

The Web has become an essential part of our lives: billions are using Web applications on a daily basis, and there are single websites that have reached over one billion user accounts. While the users browse the web, they are placing digital traces on millions of websites [27, 56]. Such traces allow advertising companies, as well as data brokers to continuously profit from collecting a vast amount of data associated to the users. At the same time, the users do not have any control of who is collecting their data and when. Recent research has shown that third-party advertising networks and data brokers use a wide range of techniques in order to track users across the Web [64, 63, 7, 50, 27, 24, 2, 56, 45]. Web users today are losing trust in online systems, as they are getting more concerned with how companies may use their data. As evaluated by Eurobarometer [72], a majority of EU citizens think it is “unacceptable to have their online activities monitored in exchange for unrestricted access to a certain website (64%)”.

In the upcoming years, Europe will make a significant transformation of the Web Tracking ecosystem. Next to General Data Protection Regulation (GDPR) [33] that will in force on 25 May 2018, a new ePrivacy Regulation [29, 30] will be finalised. ePrivacy will be based on the notion of users’ consent, which will impart users with an increasing control over their data.

Citations


Main activities
We first aim at performing large-scale measurement and detect, and classify advanced Web tracking technologies. The biggest challenge with respect to the previous works is to design fine-grained detection of Web tracking, revealing main practices of tracking companies at large scale, and to provide a classification of these techniques. This task includes:

- Large-scale measurement and data collection
- Measurement of uniqueness of users browsers and preferences on the Web
- Classification and detection of advanced Web tracking

Second, we will devise new methods and tools to protect users from advanced Web tracking based on our classification of third-party trackers taking into account ePrivacy Regulation.

Collaboration:
The PhD student will closely work within the INDES research team of the Sophia-Antipolis Inria Research Center with strong interactions with DIANA team (Sophia-Antipolis Inria Research Center).

Skills
Master degree in Computer Science or Computer Engineering is required. Programming skills in Python 3.
Knowledge of Web technologies and JavaScript in particular is required.
Fluent English required, both oral and written.
Knowledge of French is not required.

Benefits package
- Subsidised catering service
- Partially-reimbursed public transport
- Social security
- Paid leave
- Flexible working hours
- Sports facilities

Remuneration
Duration: 36 months
Location: Sophia Antipolis, France
Gross Salary per month: 1982€ brut per month (year 1 & 2) and 2085€ brut/month (year 3)