2017-00214 - [ZENITH] Post-doctoral position/ Similarity Search in Large Scale Time Series

Contract type: Public service fixed-term contract
Level of qualifications required: PhD or equivalent
Function: Temporary scientific engineer

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.

The Inria Sophia Antipolis - Méditerranée center counts 37 research teams and 9 support departments. The center's staff (about 600 people including 400 Inria employees) is composed of scientists of different nationalities (250 foreigners of 50 nationalities), engineers, technicians and administrators. 1/3 of the staff are civil servants, the others are contractual. The majority of the research teams at the center are located in Sophia Antipolis and Nice in the Alpes-Maritimes. Six teams are based in Montpellier and a team is hosted by the computer science department of the University of Bologna in Italy. The Center is a member of the University and Institution Community (ComUE) "Université Côte d'Azur (UCA)".

About the research centre or Inria department

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Context

The Inria's Zenith team, directed by P. Valduriez, proposes a postdoctoral research position on massive data analytics. In the context of massive data distribution at very large scale, we must address major challenges to develop efficient solutions for analyzing the data. Actually, technological solutions exist to support developers in this task, e.g. Apache Spark or the MapReduce framework. However, there are still crucial problems to resolve in order to avoid dramatical response times. For example, in the case of pattern extraction, it is vital to design extraction schemes that take into account the context of distribution and characteristics of the infrastructure (typically a straightforward implementation of Apriori in MapReduce for frequent pattern discovery is easy, but will lead to very low performance).

The analytical techniques considered in this postdoctoral position are related to frequent patterns, frequent sequential patterns or informative patterns (based on entropy). According to your background, you will work on one or more of these topics, in a large scale distributed environment.

Assignment

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Main activities

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General Information

- Theme/Domain: Data and Knowledge Representation and Processing
- Town/city: Montpellier
- Inria Center: CRI Sophia Antipolis - Méditerranée
- Starting date: 3/1/18
- Duration of contract: 12 months
- Deadline to apply: 2/28/18

Contacts

- Inria Team: ZENITH
- Recruiter: Masseglia Florent / florent.masseglia@inria.fr

Conditions for application

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

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). Authorization 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.

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.
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Skills
The candidate should have a strong background in large scale data management and be proficient in English. Send us a detailed CV, including a complete bibliography and recommendation letters.

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

Remuneration
Gross Salary: 2650 brutto per month

Work location: Montpellier