18_CS_WADD_RE1RE2

Job Reference

18_CS_WADD_RE1RE2

Position

Developer for an integrated layers PySpark/PyCOMPSs (RE1/RE2)

Data de tancament

Dissabte, 31 Març, 2018

About BSC

The Barcelona Supercomputing Center - Centro Nacional de Supercomputación (BSC-CNS) is the leading supercomputing center in Spain. It houses MareNostrum, one of the most powerful supercomputers in Europe, and is a hosting member of the PRACE European distributed supercomputing infrastructure. The mission of BSC is to research, develop and manage information technologies in order to facilitate scientific progress. BSC combines HPC service provision and R&D into both computer and computational science (life, earth and engineering sciences) under one roof, and currently has over 500 staff from 44 countries.

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Context and Mission
The Computer Sciences (CS) department of the Barcelona Supercomputing Center aims at carrying out research and development to influence the way computing machines are built, programmed and used. The Workflows and Distributed Computing group at the Barcelona Supercomputing Center aims at carrying out research on programming models for distributed computing. More specifically, this group is contribution to the CLASS project with the programming model PyCOMPSs/COMPSs. PyCOMPSs/COMPSs is a task-based, parallel programming model offered to the project applications as a means to execute them in distributed environments (see compss.bsc.es). For this research, the group is looking for a junior developer in order to design and implement a layer for integration of the PyCOMPSs programming model with the PySpark programming model.

The CLASS project is coordinated by BSC and involves partners from academia (University of Modena), government (City of Modena) and industry (ATOS, IBM and Maserati) with the objective of developing advanced urban mobility applications with connected cars. The project plans to pave the way to better bigdata systems that will improve quality of urban life in terms of sustainability, services and safe mobility, while preparing the technological background for the advent of autonomous vehicles.

Key Duties

- Design and implementation of a layer that enables interoperability of PyCOMPSs and PySpark codes.
- Tests of these developments
- Support to the project use case development
- Attendance to project meeting and contribution to project reports

The candidate will work closely with other research members on the team of the Workflows and Distributed Computing group.

Requirements

- Education
  - Computer science master degree or computer science degree

- Essential Knowledge and Professional Experience
  - Programming skills in Python and Java
  - Skills on runtime programming (threads and other type of basic parallelism)

- Additional Knowledge and Professional Experience
  - Distributed computing
  - Experience in European projects

- Competences
  - Fluency in spoken and written English, while fluency in other European languages will be also valued
Conditions

- The position will be located at BSC within the Computer Science Department
- We offer a full-time contract, a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible hours, extensive training plan, tickets restaurant, private health insurance, fully support to the relocation procedures
- Salary: we offer a competitive salary commensurate with the qualifications and experience of the candidate and according to the cost of living in Barcelona
- Duration of the contract: 30 months, with a test period of 6 months
- Starting date: asap

Applications Procedure

All applications must include:

- A motivation letter with a statement of interest, including two contacts for further references
- A full CV including contact details

Deadline

The vacancy will remain open until suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.

Diversity and Equal Opportunity Employment

BSC-CNS is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.

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