33_CS_WDC_RE12

Job Reference

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Position

Junior Developer for PyCOMPSs runtime and analytic codes in Fujitsu project (RE1/RE2)

Data de tancament

Dilluns, 30 Abril, 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 a project with FUJITSU 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 contribute to the project we have with FUJITSU with contributions to the runtime of PyCOMPSs and by evaluating them in analytic codes (i.e. K-means, DBSCAN, cascade SVM, ...).

The BSC has recently signed a contract with FUJITSU, which includes a subproject to port PyCOMPSs to Fujitsu platforms and to test several data analytic benchmarks and applications in that platforms. Other developments will include new features in the PyCOMPSs runtime to better adapt to the FUJITSU platforms.

Key Duties

- Porting and tuning of analytic codes written in PyCOMPSs
- Test of these codes in BSC and FUJITSU platforms
- Design and implementation of new runtime features for PyCOMPSs
- Tests of these developments
- 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
- 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 Sciences 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
- 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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