Job Reference

243_19_CS_WDC_RE1

Position

COMPSs runtime developer - Junior developer (RE1)

Data de tancament

Diumenge, 16 Febrer, 2020
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Job title: COMPSs runtime developer - Junior developer (RE1)

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 650 staff from 49 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 contributing to the EXAQUTE 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. For this research, the group is looking for a junior developer to implement some extensions to the runtime of the COMPSs runtime. The following extensions are foreseen: extensions to support a more efficient management of data collections (arrays, lists, etc); extensions to support task failures; extensions to support application checkpoint and restart; between others.
Key Duties

- Development of extension in the COMPSs runtime
- Development of tests to check the extensions with the COMPSs test infrastructure
- Contribution to COMPSs manual that illustrates how to use the newly developed features
- The candidate will work closely with other research members on the team of the Workflows and Distributed Computing group

Requirements

- Education
  - Computer science degree or similar, or a student finalizing the studies

- Essential Knowledge and Professional Experience
  - Background in runtime systems and system software
  - Knowledge of Distributed Computing
  - Good programming skills in Java and C, and/or Python

- 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 working hours, extensive training plan, tickets restaurant, private health insurance, fully support to the relocation procedures
- Duration: Temporary - 1 year renewable
- 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 full CV in English 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. This position is reserved for candidates who meet the requirements and have the legal status of disabled persons with a degree of disability equal to or greater than 33%. In case there are no applicants with disabilities that meet the requirements, the rest of the candidates without declared disability will be evaluated.

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