180_CS_OSCAI_RE12

Job Reference

180_CS_OSCAI_RE12

Position

Research Engineer (RE12)

Data de tancament

Dilluns, 30 Juliol, 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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BSC-CNS Corporate Video

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Context and Mission

The Computer Architecture and Operating System group at the Barcelona Supercomputing Center aims at carrying out research on programming models for critical embedded systems in charge of controlling fundamental parts of cars, airplanes and satellites.
In the framework of European projects, in collaboration with multinational companies and European research centers, and projects with the European Space Agency (ESA), the group is aiming to investigate and design software frameworks to efficiently develop advanced functionalities to control the most critical parts of the system (e.g., autonomous driving systems, unmanned vehicles). The use of high-performance and distributing computing technologies for heterogeneous environments (including cloud and edge computing resources) as well as the use of advanced parallel programming models for parallel processors (e.g., many-core fabrics, GPUs) will be investigated. For this research, the group is looking for a research engineer to develop and maintain the software tools and evaluation boards upon which the research will be conducted.

**Key Duties**

1. Support the design, development and maintenance of the software tools upon which the research will be conducted.
2. Installation and maintenance of multiple evaluation boards (e.g. GPUs, many-cores, FPGAs, DSPs)
3. Interactions with different international partners from industry and academia to achieve project objectives, supporting them to adopt the tool to their necessities.
4. Write technical reports and support the production of scientific papers.
5. Attend project meetings.

**Requirements**

- **Education**
  - Master’s degree in Computer Sciences

- **Essential Knowledge and Professional Experience**
  - Expertise in Java and C/C++ programming
  - Experience in distributed and/or parallel programming environments (Spark, OpenMP, CUDA, etc.) will be valuable.
  - Experience on the use of development boards will be valuable.
  - Experience in critical embedded systems will be valuable.

- **Competences**
  - Problem-solving, pro-active, result-oriented work attitude
  - Capability to work in an international and fast-paced work environment towards tight deadlines
  - Good communication skills including a good command of the English language (written and spoken)

- **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 - COMPULSORY - Applications without this document will not be considered
• 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.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación