Job Reference

243_CS_CAOS_RE1RE2

Position

Research Engineer (RE1/RE2) to work on the simulation infrastructure of SuPerCom Project

Data de tancament

Dimecres, 31 Gener, 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

Applications are invited for an Engineer position in the research lines of the Computer Architecture Operating System Department (http://www.bsc.es/caos) at Barcelona Supercomputing Center (BSC-CNS). We are offering an Engineer position for a period of 5 years (with possibility of extension) in the context of the ERC-funded project Sustainable Performance for High-Performance Embedded Computing Systems (SuPerCom). ERC are one of the most prestigious projects a European researcher can be awarded (https://erc.europa.eu/about-erc/mission).
SuPerCom is a 5-year project funded by the European Union that starts in early 2018 and that involves around 10 researchers. The main objective is to propose a holistic multidisciplinary approach that addresses the challenge of providing high and sustainable performance with future embedded computers comprising high-performance hardware with unprecedented complexity levels.

This project involves research in microarchitecture, embedded systems like those in automotive or space domains. Francisco J. Cazorla is the principal investigator (PI) of the project. For a complete list of publications of the PI, please visit: http://people.ac.upc.edu/fcazorla/.

**Key Duties**

- Coordinate the adoption of new simulation tools for the research carried in the SuPerCom Project. The simulation tools will focus on multicore and GPU architectures
- Provide support to all other researchers of the project using the tool
- Port the latest available benchmarks and applications so they run in the simulation tool
- Document the developments carried out

**Requirements**

- **Education**
  - MSc in Computer Science (or expected to graduate in the current course)

- **Essential Knowledge and Professional Experience**
  - Computer Architecture: micro-architecture, resource sharing in multicores, cache hierarchy
  - Operating Systems: Linux, scripting
  - Performance Analysis of parallel applications
  - Programming: C/C++, VHDL/Verilog, Assembler, Open MP/MPI, CUDA, etc.

- **Competences**
  - Ability to take initiative, prioritize and work under set deadlines pressure
  - Ability to work independently and in a team
  - Capacity to interact and build strong relations with other research groups
  - Good verbal communication skills in English

**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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