Job Reference

185_CS_PM_R2

Position

Researcher in High Performance and Scientific Computing and Programming (R2)

Data de tancament

Diumenge, 31 Desembre, 2017

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.

Look at the BSC experience:

BSC-CNS YouTube Channel

BSC-CNS Corporate Video

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Context and Mission

The Programming Models (PM) group as part of the Computer Science Department, is one of the biggest groups composed of more than 30 PhD students, support engineers, postdocs and senior researchers. PM has a strong background on parallel and distributed programming models, domain specific languages (DSLs), compilers and accelerators. The PM group is involved in many EU project such as Mont-Blanc 2 & 3, DEEPER, AXIOM and INTERTWinE, as well as, industrial projects with Repsol, IBM, Intel, Microsoft, NVIDIA, Fujitsu and LG. The successful applicant will be based at BSC, but will also interact with our academic and industrial partners.
The PM group is looking for scientists from the national and international community who wish to develop his/her career in a stimulating environment, rich in technological resources and campus life. We encourage applications from highly motivated computer scientists with outstanding qualifications. Successful candidates will join the PM research groups to carry out their research in cutting-edge areas of parallel and distributed programming models, including the implementation of high-performance codes, mathematic libraries, compilers, runtimes, accelerators, DSLs, etc.

**Key Duties**

- Developing of Linear Algebra routines for parallel architectures using parallel programming models such as OmpSs, OpenMP, CUDA, among others
- Debugging and maintenance of codes
- Writing of articles/reports about the implementations/optimizations carried out

**Requirements**

- **Education**
  - PhD in Computer Sciences, Computer Engineering, Telecommunication Engineering or equivalent

- **Essential Knowledge and Professional Experience**
  - Good skills in programming in C, OpenMP, CUDA and MPI
  - Knowledge about runtimes (OpenMP tasks)

- **Competences**
  - Good written and verbal communication skills
  - Ability to take initiative, prioritize and work under set deadlines and pressure
  - Ability to work independently and in a team

**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
- Duration of the contract: one year (extendable up to two depending on performance)
- 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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