605_23_ES_HPCES_RE1

Job Reference

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Position

Software developer Engineer (RE1)

Data de tancament

Dimecres, 31 Gener, 2024
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Job title: Software developer Engineer (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, was a founding and hosting member of the former European HPC infrastructure PRACE (Partnership for Advanced Computing in Europe), and is now hosting entity for EuroHPC JU, the Joint Undertaking that leads large-scale investments and HPC provision in Europe. 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 900 staff from 55 countries.

Look at the BSC experience:
BSC-CNS YouTube Channel
Let's stay connected with BSC Folks!

We are particularly interested for this role in the strengths and lived experiences of women and underrepresented groups to help us avoid perpetuating biases and oversights in science and IT research.

Context And Mission

Within the Barcelona Supercomputing Center the Earth Sciences Department, led by Prof Francisco Doblas-Reyes, aims to deliver novel, advanced, and well-evaluated high-resolution global climate models capable of simulating and predicting climate estimations with unprecedented reliability. The successful candidate will be part of the Performance Team a sub-group in the section of Computational Earth Sciences.

This team, composed of 15 members but steadily growing, performs R&D tasks in the field of Earth system
model (ESM) performance. The team has different goals such as identifying model bottlenecks and researching how to remove them, adapting parallel codes for top HPC platforms around Europe, or properly using novel technologies as new accelerators.

**Key Duties**

- The suitable candidate will work with the EC-Earth model. They will have a technical profile, be able to debug, solve technical issues, and understand the entire workflow from compilation to result production.
- He will be in charge of the deployment of the model on different EuroHPC machines. This will imply performing scalability studies, and implementing small computational optimizations if needed to ensure the optimal setup specific to each HPC platform.
- Contribute to the development of tools used for performance analysis and performance improvement inside the team.
  Interaction with the Atmospheric Composition Group.

**Requirements**

- **Education**
  - Having a Bachelor in Computer Science, Engineering, Mathematics, Physics or related discipline
  - Having a Master’s degree will be valued
- **Essential Knowledge and Professional Experience**
  - Computing skills in high-level computer languages and experience with UNIX/LINUX environments and scripting languages (bash, Python, etc)
  - Knowledge in parallel programming (multi-threaded applications) will be valued
  - Experience or knowledge in the usage and support of Unix- or Linux-based HPC systems
- **Additional Knowledge and Professional Experience**
  - Fluency in English
- **Competences**
  - Excellent problem-solving skills
  - Proactive attitude
  - Learning capacity and motivation to maintain a learning progression
  - Good written and verbal skills and capacity to support Earth and Computational scientists
Conditions

- The position will be located at BSC within the Earth Sciences Department
- We offer a full-time contract (37.5h/week), a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible working hours, extensive training plan, restaurant tickets, private health insurance, support to the relocation procedures
- Duration: Open-ended contract due to technical and scientific activities linked to the project and budget duration
- Holidays: 23 paid vacation days plus 24th and 31st of December per our collective agreement
- 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 and process

All applications must be made through BSC website and contain:

- A full CV in English including contact details
- A Cover Letter with a statement of interest in English, including two contacts for further references - Applications without this document will not be considered

In accordance with the OTM-R principles, a gender-balanced recruitment panel is formed for every vacancy at the beginning of the process. After reviewing the content of the applications, the panel will start the interviews, with at least one technical and one administrative interview. A profile questionnaire as well as a technical exercise may be required during the process.

The panel will make a final decision and all candidates who had contacts with them will receive a feedback with details on the acceptance or rejection of their profile.

At BSC we are seeking continuous improvement in our recruitment processes, for any suggestions or feedback/complaints about our Recruitment Processes, please contact recruitment [at] bsc [dot] es.

For more information follow [this link](#)