341_22_CASE_F_RE3

Job Reference

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Position

Researcher/Research Engineer for the Fusion Group (R3 - RE3)

Data de tancament

Dilluns, 31 Octubre, 2022
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Job title: Researcher/Research Engineer for the Fusion Group (R3 - RE3)

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 770 staff from 55 countries.

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

Context And Mission

The Fusion group (fusion.bsc.es) at the Computer Applications in Science and Engineering (CASE) department is looking for Researchers (RE2-RE3) and/or Research Engineers (R2-R3) in Computers Science, Engineering, Physics or related fields to join the growing team of the EUROfusion Advanced Computing Hub at BSC. The successful candidates will participate in cutting-edge European R&D activities in plasma physics science and fusion technology and become members of this reference performance group in an international working environment.

The overall objective of the CASE Fusion group is to enhance modelling capabilities in fusion by code development, validation, integration and optimization including the use of advanced HPC techniques.
work closely towards the objectives of EUROfusion (www.euro-fusion.org), the European fusion research programme for Horizon Europe, in collaboration with Fusion for Energy (F4E), ITER, International Tokamak Physics Activity, and the Spanish national fusion laboratory CIEMAT.

**Key Duties**

- R&D activities in the assigned domain in the EUROfusion Advanced Computing Hub at BSC
- Optimizing and porting scientific codes in the field of fusion to new computer architectures.

**Requirements**

- **Education**
  - MSc or PhD in computational physics, computer science, engineering or related fields

- **Essential Knowledge and Professional Experience**
  - Demonstrated research experience
  - Strong skills in Linux environment
  - Strong knowledge on numerical methods, code development and scientific computing
  - Experience in scientific writing and communicating results

- **Additional Knowledge and Professional Experience**
  - At least 2 years of professional experience in a similar role
  - Programming skills: experience in programming and debugging (C, C++, Fortran, MPI, OpenMP, OpenACC and CUDA)
  - HPC: Experience building and debugging large-scale engineering/scientific software in large clusters and heterogeneous architectures
  - Experience in the use of mathematical libraries desirable
  - Experience in numerical solvers desirable
  - Experience in GPU enabling desirable
  - Experience in performance analysis of large supercomputing codes desirable
  - Experience in liaising with different stakeholders in code development teams desirable
  - Experience in development, delivery, continuous integration, refactoring and user support desirable
  - Experience in Agile methodologies desirable
  - Experience in training code users desirable
  - Experience in working within interdisciplinary teams desirable

- **Competences**
  - Flexible team player capable of working with others as well as independently
  - Problem-solving, pro-active, result-oriented and positive work attitude
  - Able to think analytically
  - Fluent in English, both written and spoken
  - Good interpersonal skills, including in multi-cultural environments
  - Able to write reports, communicate results and train code users
Conditions

- The position will be located at BSC within the CASE 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: Open-ended contract due to technical and scientific activities linked to the project and budget duration
- 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: 01/10/2022

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

Deadline

The vacancy will remain open until suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.
OTM-R principles for selection processes

BSC-CNS is committed to the principles of the Code of Conduct for the Recruitment of Researchers of the European Commission and the Open, Transparent and Merit-based Recruitment principles (OTM-R). This is applied for any potential candidate in all our processes, for example by creating gender-balanced recruitment panels and recognizing career breaks etc.

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.

For more information follow this link

Barcelona Supercomputing Center - Centro Nacional de Supercomputación