Job Reference

238_ES_CES_RE2

Position

Climate Diagnostics Engineer - RE2

Data de tancament

Dilluns, 25 Desembre, 2017

BSC-CNS (Barcelona Supercomputing Center – Centro Nacional de Supercomputación) is the National Supercomputing Facility in Spain and manages MareNostrum, one of the most powerful supercomputers in Europe. The mission of BSC-CNS is to investigate, develop and manage information technology in order to facilitate scientific progress. With this aim, special dedication has been taken to areas such as Computer Sciences, Life Sciences, Earth Sciences and Computational Applications in Science and Engineering.

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Context and Mission of the role

Within the Earth Sciences Department of Barcelona Supercomputing Center, led by Prof Francisco Doblas-Reyes, the climate prediction group aims at developing a climate prediction capability for time scales ranging from a few weeks to a few decades into the future (sub-seasonal to decadal climate prediction) and from regional to global scales. In the framework of the H2020 PRIMAVERA project, this will deliver novel, advanced and well-evaluated high-resolution global climate models, capable of simulating and predicting regional climate with unprecedented fidelity.

The successful applicant will join the Computational Earth Sciences group to provide technical support for other researchers and in particular, help at the practical implementation of new metrics and diagnostics that can be used for model evaluation within the newly developed Earth System Model Validation Tool (ESMValTool)—a community diagnostic and performance metrics tool for routine evaluation of climate models.
Moreover, the successful applicant will contribute to the ongoing strategy for the development of the Earth Sciences Department tools, thereby increasing the applicability and international visibility—and hence the impact—of the research coming out of present and future projects. This work will be carried out interacting closely with the climate prediction group and external collaborators/software vendors.

Requirements

- **Education**
- Having a Bachelor in Computer Science, Telecommunications, Physics or related discipline
- **Knowledge and professional experience**
  1. Excellent computing skills in high-level computer languages (especially FORTRAN and C/C++) and experience with UNIX/LINUX environments and scripting languages (bash, Python, etc)
  2. Excellent programming skills to manage big and collaborative projects and experience with git and SVN
  3. Good knowledge of climate data formats (GRIB, NetCDF) and data dissemination technologies (e.g. THREDDS, ESGF, OpeNDAP)
  4. Previous experience in a scientific area related to the position, in particular climate or ocean modeling
  5. Previous experience in implementing metrics and diagnostics for model evaluation
  6. Previous experience in scientific software and tools (R, CDO, CDFTools, ESMValTools, Python Numpy and Scipy, etc)
  7. Previous experience in HPC architecture and parallel programming (multi-threaded applications) will be valued
  8. Computer programming experience related to solving scientific computing problems involving the handling of very large projects

Conditions

- A competitive salary will be provided, matched to the cost of living in Barcelona, depending on the value of the candidate

Applications Procedure

All applications must be done through the BSC website:


Including:

1. A full CV including contact details.

Diversity and Equal Opportunity Employment

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