312_19_ES_ACG_RE2

Job Reference

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Position

Research Support Engineer - Development of atmospheric emission models (RE2)

Data de tancament

Divendres, 31 Gener, 2020
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Job title: Research Support Engineer - Development of atmospheric emission models (RE2)

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 650 staff from 49 countries.

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BSC-CNS YouTube Channel
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Context And Mission

The Atmospheric Composition group from the Earth Science department at the BSC-CNS searches for one junior research support engineer willing to work on the development, maintenance and updating of the High-Effective Resolution Modelling Emission System (HERMESv3). HERMESv3 is a multiscale atmospheric emission model for supporting air quality modelling research that has been fully developed at the Earth Science department at the BSC-CNS and that is used for multiple international and national research projects. The position will support new developments to improve and update the model, including the buildup of activity data and emission factor databases and geographical and temporal proxies on inter- and trans-disciplinary collaboration with other projects at the Earth Science department and external partners. The successful applicant will work closely with providers of emission and activity data at the global,
European level as well as national and city levels to build and evaluate emission inventories suitable for studies of air pollution at scales ranging from urban- to global-scale.

**Key Duties**

- Collection and processing of activity and emission data for use in model development
- Development of spatial and temporal profiles for different emission sectors
- Geoprocessing and spatial analysis using GIS tools
- Development and assessment of emission estimation methodologies
- Analysis, benchmarking and inter-comparison of emission inventories
- Interact with atmospheric composition scientists to understand and respond to their needs

**Requirements**

- **Education**
  - A graduate degree in the physical sciences or engineering (e.g., Chemistry, Meteorology, Physics, Environmental Engineering, Chemical Engineering), Master in Environmental Engineering or similar

- **Essential Knowledge and Professional Experience**
  - Experience with emission inventory development
  - Experience with GIS data and tools
  - Experience in programming in Python and R

- **Additional Knowledge and Professional Experience**
  - Experience in similar fields will be valued

- **Competences**
  - Fluent English, both written and spoken

**Conditions**

- The position will be located at BSC within the Earth Sciences 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: Temporary - 1 year renewable
- 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: Pending
Applications Procedure

All applications must include:

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

This position is reserved for candidates who meet the requirements and have the legal status of disabled persons with a degree of disability equal to or greater than 33%. In case there are no applicants with disabilities that meet the requirements, the rest of the candidates without declared disability will be evaluated.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación