583_23_CASE_DT_R3

Job Reference
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Position
Senior AI researcher (R3)

Data de tancament
Dilluns, 01 Gener, 2024
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Job title: Senior AI researcher (R3)

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
The Dual-Use Technologies research group at BSC offers a senior position to coordinate the technical activities of the group for AI research.

Key Duties
- Coordination of Dual-Use technical activities
- Lead AI and optimization research lines.
- Lead technical development of competitive proposals.

Requirements

- Education
  - The candidate should hold a Ph.D. related to computational mechanics and applied mathematics. Basic education (BSc/MSc) related to computational mechanics and numerical methods.

- Essential Knowledge and Professional Experience
  - Deep knowledge on machine learning methods (supervised, semi-supervised, unsupervised and reinforcement learning).
  - Expertise leading projects with strong AI developments, in particular reinforcement learning methods.
  - High knowledge of deep data structures like neural networks (feed forward, convolutional, graph-based, recursive, transformers) and ensemble models.
  - Deep knowledge on numerical methods for engineering problems (surrogate modelling, finite element methods, numerical modelling of PDEs).
  - More than 5 years of experience as a senior researcher in the field of computational mechanics, and 2 years of minimum experience in dual-use Technologies.
  - Experience as principal investigator for national and international competitive projects.
  - A minimum of 3 scientific publications in Q1 journals during the last 3 years.
  - Good programming skills in Python.

- Additional Knowledge and Professional Experience
  - Professional experience in HPC centers.
  - Good knowledge on common machine learning libraries (Tensorflow, Torch,…).
  - Good programming skills in other languages (Fortran, C, C++, Julia).
  - Good knowledge on reinforcement learning libraries (Rllib, TFAgents, Tianshou…)

- Competences
  - Strong analytical skills.
  - Fluent English.
  - Capacity for leading a research team.
  - Ability to work independently and within a team.
  - Good communication, presentation and teamwork skills.
**Conditions**

- The position will be located at BSC within the CASE 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: 01/01/2024

**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 a 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](#)
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