Job Reference

589_23_LS_CB_RE1

Position

Junior Research Engineer for Computational Biology (RE1)

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Dimecres, 31 Gener, 2024
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Job title: Junior Research Engineer for Computational Biology (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

The Computational Biology Group (http://life.bsc.es/compbio), within the Life Sciences Department at the BSC, is involved in multiple projects covering several areas of precision medicine, systems biology, network science, and epidemiology.

The Computational Biology group, led by ICREA professor Alfonso Valencia, is looking for a junior research engineer to work in the framework of a European project: COMMUTE: Comorbidity mechanisms
utilized in health care. This project is divided into two main sections. COMMUTE is a project characterized by the combination of two fundamentally different approaches: a hypotheses-free, data-driven approach is building on available big data and the application of cutting edge AI/ML technologies to answer the question, whether infection by SARS-CoV-2 causes effects that result in a higher risk for the development of neurodegenerative diseases at population-level. Complementary to that, a hypothesis-driven, knowledge-based approach leverages the substantial knowledge in the scientific community working on neurodegenerative diseases on the putative comorbidity mechanisms linking COVID and neurodegeneration.

The selected candidate will work in a highly sophisticated High-Performance Computing (HPC) environment, have access to state-of-the-art systems and computational infrastructures, and establish collaborations with international and local experts in different areas of biomedical research.

**Key Duties**

- Train and evaluate different AI/ML model architectures for the prediction of the development of neurodegenerative diseases.
- Model interpretation using SHAP.

**Requirements**

- **Education**
  - Degree in science or engineering with sufficient knowledge and interest in biology or bachelor’s in biology, biotechnology, or medicine.
  - MSc in data science, machine learning or similar or computational biology.

- **Essential Knowledge and Professional Experience**
  - Previous experience in machine learning and artificial intelligence, and basic knowledge of epidemiology and omics data.
  - High motivation and scientific interest.

- **Additional Knowledge and Professional Experience**
  - Knowledge and experience in statistics.
  - Knowledge and experience in AI methodologies.
  - Programming: R and Python.
  - Knowledge and experience in life sciences research.
  - Fluency in spoken and written English.

- **Competences**
  - Ability to work both independently and within a team.
Conditions

- The position will be located at BSC within the Life 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

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