233_25_DIR_CSSH_RE2

Job Reference

233_25_DIR_CSSH_RE2

Position

Data scientist for Computational Social Sciences and Humanities (RE2)

Fecha de cierre

Martes, 25 Marzo, 2025
Reference: 233_25_DIR_CSSH_RE2
Job title: Data scientist for Computational Social Sciences and Humanities (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, 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 1000 staff from 60 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. In instances of equal merit, the incorporation of the under-represented sex will be favoured.

We promote Equity, Diversity and Inclusion, fostering an environment where each and every one of us is appreciated for who we are, regardless of our differences.

If you consider that you do not meet all the requirements, we encourage you to continue applying for the job offer. We value diversity of experiences and skills, and you could bring unique perspectives to our team.

Context And Mission

The Computational Social Science and Humanities program envisions preparing the social sciences and humanities for the era of data, artificial intelligence (AI), and Exascale supercomputing. Our mission is to foster collaboration between social scientists and computer scientists, making high-performance computing (HPC) accessible to all researchers in the field. Through innovative approaches, we aim to apply social science and humanities research to contribute valuable insights for informed policy making. In our pursuit, we focus on a wide range of key societal research areas such as Equity and Welfare, Education, Social Services and Labor Market, Public Opinion and Political Communication in (Social) Media, Social-Ecology, Science and Technology Studies, Archived History, Archeology and Cultural Heritage. Employing a mixed of advanced AI/ML models, including Large Language Models (LLMs), Agent-Based Modeling (ABM), and Social Network Analysis (SNA), we use high-performance computational methods to a wide range of large datasets, such as official statistics, surveys, social media, web-tracking data, news, laws, bibliometric data, historical archives, current data archives, archeology data, citizen volunteered data, and public administration and industry data.

We are seeking a qualified person with the capacity to bridge between social-ecological and computational research. The candidate will join the Social Ecology team in the Computational Social Sciences and Humanities Lab and will report to the team leader, Dr. Johannes Langemeyer. The candidate will become part of the ERC-project BIG-5 (big-5.eu), investigating the creation of nature values across virtual communities and the implication of digital nature values for environmental stewardship.

Key Duties

- Examine the creation and multiplication of DRVs across different virtual communities
- - Creation of a social media data sample
- - Digital social network analysis
- Supporting methodological design and execution to examine the creation of environmental stewardship triggered by digital nature values.
- - Support of large language model development
- - Survey design, execution and data analysis
- - Experimental design, execution and data analysis

Requirements

- Education
  - BA in Environmental Science, or related area
  - Formal Education in data science (level of MSc)

- Essential Knowledge and Professional Experience
  - Work experience as a Data scientist
  - Work experience in a research environment
  - Coding in Python
  - Knowledge in quantitative and qualitative methodologies for social research

- Additional Knowledge and Professional Experience
  - Good knowledge of statistics
  - Domain knowledge in environmental science, geography or sociology
  - Project Management skills

- Competences
  - Fluency in English
  - Good written and verbal communication skills, including the production of scientific literature
  - Good problem-solving skills
  - Ability to take initiatives, prioritize tasks and work under set deadlines
  - Ability to work both independently and in a team

Conditions

- The position will be located at BSC within the Directors 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: April 1st, 2025

Applications procedure and process

All applications must be submitted via the BSC website and contain:

- A full CV in English including contact details
- A cover/motivation letter with a statement of interest in English, clearly specifying for which specific area and topics the applicant wishes to be considered. Additionally, two references for further contacts must be included. Applications without this document will not be considered.

Development of the recruitment process

The selection will be carried out through a competitive examination system ("Concurso-Oposición"). The recruitment process consists of two phases:

- **Curriculum Analysis:** Evaluation of previous experience and/or scientific history, degree, training, and other professional information relevant to the position. - ***40 points***
- **Interview phase:** The highest-rated candidates at the curriculum level will be invited to the interview phase, conducted by the corresponding department and Human Resources. In this phase, technical competencies, knowledge, skills, and professional experience related to the position, as well as the required personal competencies, will be evaluated. - ***60 points.*** *A minimum of 30 points out of 60 must be obtained to be eligible for the position.*

The recruitment panel will be composed of at least three people, ensuring at least 25% representation of women.

In accordance with OTM-R principles, a gender-balanced recruitment panel is formed for each vacancy at the beginning of the process. After reviewing the content of the applications, the panel will begin the interviews, with at least one technical and one administrative interview. At a minimum, a personality questionnaire as well as a technical exercise will be conducted during the process.

The panel will make a final decision, and all individuals who participated in the interview phase will receive feedback with details on the acceptance or rejection of their profile.

At BSC, we seek continuous improvement in our recruitment processes. For any suggestions or comments/complaints about our recruitment processes, please contact