

921_24_LS_EAPM_R0

Job Reference

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Position

Software Master Student (R0)

Data de tancament

Dissabte, 15 Febrer, 2025

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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

EAPM is a group focuses on the theoretical modelling of biochemical and biophysical processes placing emphasis both on development of methods and on their application to specific systems. For this, we combine different modeling techniques including: quantum mechanics electronic structure, molecular modeling (Monte Carlo and molecular dynamics techniques), bioinformatic statistical analysis, machine learning, etc. To perform such simulations, we developed an application with a graphical user interface that helps scientists runs their simulations easier and faster.

The MS will develop and improve our current software for managing, submitting and analyzing simulations.

Key Duties

- **API Development:** Enhance and optimize our Flask-based API for performance, scalability, and new use cases.
- **Feature Implementation:** Collaborate with the team to design and integrate new features in our React application.
- **Testing:** Write and maintain robust unit, integration, and end-to-end tests for both the backend and frontend systems.
- **Code Review & Documentation:** Participate in code reviews and ensure well-documented, maintainable codebases.

Requirements

- **Education**
 - Bachelor in Computer Science, Software Engineering, Physics, Chemistry, Mathematics or a related field.
 - Enrolled in a Master in Computer Science, Software Engineering, Physics, Chemistry, Mathematics or a related field.
- **Essential Knowledge and Professional Experience**
 - Programming skills in Python and JavaScript.
 - Git and git based code reviews.
- **Additional Knowledge and Professional Experience**
 - knowledge in TypeScript is a plus.
 - knowledge in Flask or React is a plus.
 - Knowledge of testing frameworks (e.g., PyTest, React Testing Library) is a plus.
 - Knowledge of Docker, CI/CD pipelines is a plus.
 - Fluency in spoken and written English.
- **Competences**
 - Communication and teamwork skills, with the ability to take initiative and collaborate effectively.
 - A proactive and thoughtful approach to problem-solving.
 - High motivation, curiosity, and a commitment to continuous learning.
 - Team work

Conditions

- The position will be located at BSC within the Life Sciences Department
- We offer a part-time contract (22.5h/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: linked to the educational 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](#)

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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