

CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2024-0501 (EPICURE - HASLAB) INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Job/position/grant:	RESEARCHER
City:	Braga
Research field:	Main: COMPUTER SCIENCE Sub: Informatics

Job summary:

INESC TEC is accepting applications for 1 RESEARCHER job in the Computer Science

Project:	High-level specialised application support service in High-Performance Computing (HPC)
Scientific Advisor:	António Luís Sousa
Start Date:	2025-01-02
Location:	Braga

Job description:

Work Area: Computer Science

Project overview: Advanced User Support (Level 3) - The core function will involve providing specialized technical assistance, prioritizing code optimization, and resolving performance bottlenecks, as well as adapting and optimizing applications for specific architectures, with the aim of achieving notable improvements in operational efficiency, User Training Support - Responsibilities will include developing comprehensive educational materials and coordination of practical sessions, with the main objective being to train users in the use of machine and deep learning frameworks, promoting autonomy and deepening knowledge. Communication and Dissemination Support - The central function will be to establish transparent communication channels between the support team and users, helping to actively disseminate results, achievements, and available resources, which will be essential to promote the visibility of the project, encouraging active community participation.

Objectives: -Support for user training through the development of comprehensive educational manuals and the coordination of practical sessions, with the main objective being to train users in machine and deep learning frameworks;

-Supporting the adoption of machine and deep learning models in HPC environments;

-Optimisation of deep learning models in an HPC environment;

-Support for machine and deep learning projects in HPC submitted by EuroHPC.

Academic Qualifications: MSc in Biomedical Engineering, Computer Science, Informatics, Physics.

Minimum profile required:

- Proven competence and experience in the development of machine and deep learning models;
- Experience in developing deep learning models in HPC environments;
- Experience in developing distributed deep learning and federated learning models;
- Knowledge of supercomputer architectures, including x86 and ARM processors, GPUs, and interconnection topologies;
- Practical experience in Linux systems, HPC environments, and SLURM submission systems;
- Proficiency in written and oral communication in Portuguese and English.

Preference factors:

- Knowledge of and experience with pytorch, tensorflow, and nvidia flare learning frameworks;
- Experience in using MLOPS tools such as MLFlow and TensorBoard;
- Experience in writing technical and scientific documentation.

Funding Entity: on the scope of the project EPICURE, with reference 101139786, funding from the European High-Performance Computing Joint Undertaking (EuroHPC JU) under grant agreement No 101139786 and National Funds through the FCT - Fundação para a Ciência e a Tecnologia, I.P.

Type of contract: Uncertain term contract

The hiring shall be governed by what is stipulated in the legislation in force regarding uncertain term employment contracts and by INESC TEC norms.

Selection criteria: The selection of the candidates will be based on the following criteria, in descending order of consideration:

- Relevant Curriculum in the concerned field of this tender
- Proven experience.

Disability Incentive:	<p>Candidates who present a degree of disability equal to or greater than 90% will benefit from an incentive (20) in the score of the CV Assessment.</p> <p>Candidates who present a degree of disability equal to or greater than 60% and less than 90% will also benefit from an incentive (10) in the score of the CV Assessment.</p> <p>Said score may, in these cases, exceed 100 points.</p> <p>Candidates must demonstrate the degree of disability during the application, namely through the submission of the Multi-Purpose Medical Certificate of Disability, issued in accordance with Decree-Law no. 202/96, of October 23 - currently in effect.</p> <p>Candidates must declare, in the application form, the type of disability used throughout the selection process, in order to proceed with the required adaptations.</p>
Selection Jury:	<p>President of the Jury: António Luís Sousa;</p> <p>Member: Cláudia Vanessa Brito;</p> <p>Member: João Tiago Paulo;</p> <p>Substitute member: José Orlando Pereira;</p>
Notification of results:	<p>The results of the selection process will be sent to the interested by electronic mail.</p>
Application period:	<p>From 2024-11-21 to 2024-12-04</p>
Application submission:	<p>Electronic form filling in www.inesctec.pt in the section Work with Us</p>