



CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

Bolsa de Investigação em Regime Especial para Licenciado ou para Mestre

One Research Fellowship (Bolsa de Investigação em Regime Especial para Licenciado ou para Mestre) is open at the **Fundação da Faculdade de Ciências da Universidade de Lisboa, F.P. (FFCUL)**, with the possible transfer to **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências** (see point nr. 14) for project “GAVIDAV – Gaia Added Value Data Visualisation Functionality”, carried out at the Multidisciplinary Center for Astrophysics (CENTRA), financed by ESA Contract 4000112822/14/NL/JD, under the following conditions:

1. **Scientific Area:** Software Engineering
2. **Requirements for admission:**
 - a. Candidates should be holders of a BSc degree in Software Engineering or related areas
 - b. Experience in developing Java, JavaScript, Python and/or C++ code
 - c. Experience in collaborative development using Version Control Systems (git or svn), continuous integration, unit testing frameworks and design patterns.
 - d. Experience in development of web applications and graphical user interfaces.
 - e. Candidates should speak, read and write fluently in English or Portuguese.
3. **Factors preferred:**

Strongly preferred: Experience or interest in graphics programming. Experience or Interest in three-dimensional visualization software programming, OpenCL and/or CUDA.

Constitute an advantage: Interest in Astronomy. Familiarity with ECSS (European Cooperation for Space Standardization) Standards. Interest and experience in project management. A taste for producing highly aesthetic astronomical images.
4. **Work plan:** The successful candidate will work in an active multidisciplinary team composed by Astronomers, Physicists and Engineers. The position is a unique opportunity for working in the development of an interactive visualization framework for very large scientific archives of the European Space Agency and for other space projects. The goals are, depending on the profile of the candidate, to:
 - Participate in the development of a web application for interactive visualization and exploration of astronomical data.
 - Participate in the development of the software engine that computes visual levels of detail and serves detail on demand to the web front end and other visualization software.

Follow-up work will expand the application of the framework to other domains requiring interactive visual analysis of large datasets.

Some short term traveling within Europe is expected.
5. **Legislation framework:** A fellowship contract will be celebrated according to the regulations defined by FCT “Regulations for Advanced Training and Qualification of Human Resources”, in accordance with Law 40/2004, of 18 August, as amended and republished by Decree-Law No. 202/2012 of 27 August, and as amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of January 29, and Decree-Law No. 89/2013 of 9 July; And also by the FCT, I.P. Fellowships Regulation, in force (<http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf>) and FFCUL’s Fellowship Regulation, as approved on 22nd December 2014
6. **Place of work:** The work will be developed at the CENTRA-SIM laboratories of the Faculty of Sciences of the University of Lisbon under the scientific guidance of Professor André Moitinho de Almeida.



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7. **Fellowship duration:** This position is initially opened for 6 months with the beginning foreseen in April 2017. The fellowship contract may eventually be extended to one year with the possibility of a second year renewal, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P.
8. **Monthly allowance:** The fellowship amounts to € 980 – 1450 (for BSc holders) depending on the Candidate's academic background and professional experience
The fellowship holder will have a personal accident insurance and, if not covered by any social protection scheme can ensure the right to social security through adherence to the voluntary social insurance scheme, pursuant to Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social.
The fellowship will be paid monthly by bank transfer.
9. **Selection method:** Candidates will be assessed by the quality of the documents of their application (listed in item 13 of this call).
10. **Selection Committee:** André Moitinho de Almeida (President), Alberto Krone-Martins (member); António Amorim Barbosa (member); Manuel Silva (substitute member); Paulo Gordo (substitute member)
11. **Publication/notification of results:** The final results of the evaluation will become public, through ordered list *final grade obtained* which will be posted at the entrance hall of the **FFCUL**, located at the Faculdade de Ciências da Universidade de Lisboa, C1 bldg – 3rd floor, Campo Grande, 1749-016 Lisboa, and the selected candidate will be notified by email.
12. **Deadlines:** This call for applications is open from March 14 to March 29, 2017.
13. **Application:** Applications will be sent via e-mail, with "GAVIDAV Contract" in the subject, to andre@sim.ul.pt (with cc to algol@sim.ul.pt) by attaching the following:
 - *Curriculum vitae*
 - *certificates of academic degrees*
 - *letter of motivation including a description of methodological expertise relevant to this application.*
 - *Email contact of two people well acquainted with the work of the candidate should be provided.*
14. **Hiring Institution:** FFCUL was the GAVIDAV applicant Legal Institution during the proposal stage. The project GAVIDAV is expected to be transferred to the counterpart institution **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**. In case the project transfer is concluded at the fellowship start time the fellowship contract will be awarded by FCIências.ID, without adversely affecting the applicant(s)