

JOB OFFER

To fill a position in computational archaeology for a labour contract for activities related to the Landscape Archaeology Group (GIAP) (code G017.159).

Presentation

0. Contract information
1. Eligibility
2. Responsibilities
3. Merits
4. Submission of applications
5. Selection procedure
6. Basic information on personal data protection
7. Follow-up of the call according to the hiring principles at the ICAC.

Presentation

The Catalan Institute of Classical Archaeology (ICAC) is a public research institution created by the Catalan Autonomous Government and the Rovira i Virgili University. ICAC aims to research, provide training on, and disseminate the protohistoric, classical, and late antique cultures of the Mediterranean and beyond. The Institute is recognized as a research centre in Catalonia, identified as a CERCA centre. ICAC is based in Tarragona and is composed of a team of around 60 individuals, including researchers, staff, and management and administrative staff.

The candidate will be involved in projects investigating novel machine learning algorithms to automatically detect archaeological sites from the information available on data provided by different and complementary satellite sensors.

This position has a clear research transfer and deployment profile. Based on previous results in the topic of archaeological site detection (Orengo et al. 2020, <https://doi.org/10.1073/pnas.2005583117>). New developments will update previous research with machine learning techniques, new sources of information, more scenarios, exhaustive validation and finally it will be deployed in cloud infrastructures to disseminate these new tools among the archaeological community.

0. Contract information

- 0.1. **Job Position:** Postdoctoral research at the Landscape Archaeology Group (GIAP)
- 0.2. **Job Category:** I6
- 0.3. **Workplace:** Rovellat Square, Tarragona.
- 0.4. **Working Hours:** Full-time, 37.5 hours per week, Monday to Friday.
- 0.5. **Salary:** € 34.465,48 gross annually.
- 0.6. **Duration:** Indefinite.
- 0.7. **Number of Positions:** 1
- 0.8. **Contract Type:** Permanent employment with full-time dedication (100).
- 0.9. **Call:** Public offering.
- 0.10. **Processing:** Ordinary.
- 0.11. **Regulations:** ICAC Instruction 3/2022, dated September 15, Article 23bis of Law 14/2011, of June 1, on Science, Technology, and Innovation, modified by Law 17/2022, of September 5, and Law 9/2022, of December 21, on Science.

- 0.12. Measures to promote work-life balance, family, personal life, and gender equality for this position will be attached to the employment contract and can be consulted on the ICAC website, here.

1. Eligibility

- 1.1. PhD in Computer Science, Remote Sensing, Mathematics, Physics, Geospatial Analyses, Geosciences, Telecommunications, or any other relevant field related to remote sensing, spatial and temporal statistical analysis and Machine Learning.

2. Responsibilities

- 2.1. Review the relevant literature and related works.
2.2. Design and implement an automatic detection system to process efficiently big volumes of multispectral images. This includes developing a web-based front-end to download and manage the data to be processed and conceiving back-end algorithms to automatically extract information from the data using high performance computing resources.
2.3. Lead and coordinate the dissemination of the project results, including writing submissions to top journals and conferences.
2.4. Write deliverables and technical reports.
2.5. Engage with collaborators, participate in research discussions, and contribute with new ideas.
2.6. Participate in training activities.

3. Merits

- 3.1. A master's degree related to the call for applications.
3.2. Experience in applied remote sensing, involving multi/hyperspectral image processing, supervised and unsupervised classifiers.
3.3. Experience in teaching and training
3.4. Excellent writing and communication skills in English.
3.5. Excellent publication record in top journals (assessment relative to the candidate's career stage).
3.6. Two or more years of experience in public or private applied research.
3.7. Experience in technology transfer, industrial research and/or research projects with both academic and industrial partners.
3.8. Programming experience with Python
3.9. Programming experience in R
3.10. Programming experience in Google Earth Engine
3.11. Programming experience in GIS applications (ESRI ArcMap suite and QGIS).
3.12. Experience in preparation of research proposals for funding agencies and writing technical reports.
3.13. Track record that shows the ability to work both autonomously and in collaborative environments and projects.

4. Submission of applications

- 4.1. Interested people who meet the eligibility requirements can submit the application by e-mail at rrhh@icac.cat. The email will consist of:
4.1.1. Subject: type "ICAC Call G017.159" in the subject section of the email.

- 4.1.2. Body of the message: surnames and first name, NIF or passport number, a contact phone number, the academic degree, in addition to stating the will to participate in this job offer.
- 4.1.3. Attached documents:
 - 4.1.3.1. PDF file with the required degree certification listed in this Call (in Section 1. Eligibility).
 - 4.1.3.2. Curriculum vitae (CV (in a PDF file) related to the job offer.
 - 4.1.3.3. A single PDF file containing the supporting documents corresponding to the merits and experience listed in the CV.
- 4.2. In the curriculum vitae (CV), it is necessary to provide a detailed description of the responsibilities performed in each of the positions held and specify the dates and duration of each contract. Regarding education, it is essential to specify in all cases the duration of the courses in hours, and the type of certification obtained (attendance, attendance with achievement, etc.). Regarding language proficiency, a corresponding certificate must be provided specifying the level achieved according to the Common European Framework of Reference for Languages (CEFR).
- 4.3. Deadline for Applications ends on June 13, 2024 at 23:59h.
- 4.4. Applications that do not meet the eligibility of the call will not be considered.

5. Selection procedure

- 5.1. The Evaluation and Selection Committee (hereinafter, CAS) will assess the applications based on the CVs. The CAS will consider the best match between the academic background of the applicant and the scientific and technical activities they are required to perform. Additionally, the CAS will score up to a maximum of 100 points in accordance with the following sections:
 - 5.1.1. **Academic qualifications:** academic qualifications will be assessed when they are suitable for the job, with a score of 0 to 20 points. This assessment will not consider the degree presented to meet the requirements specified in section 1 of the offer.
 - A master's degree related to the call for applications.....20 points
 - 5.1.2. **Work, research, and other training experience:** the following items will be evaluated from 0 to 65 points:
 - Experience in applied remote sensing, involving multi/hyperspectral image processing, supervised and unsupervised classifiers (3.2)..... 15 points
 - 1 worked month.....0,25 points
 - Experience in teaching and training (3.3)..... 12 points
 - 1 worked month.....0,25 points
 - Two or more years of experience in public or private applied research (3.6)..... 10 points
 - 1 worked month.....0,25 points
 - Experience in technology transfer, industrial research and/or research projects with both academic and industrial partners (3.7).....5 points
 - 1 worked month.....0,25 points
 - Programming experience with Python (3.8).....5 points
 - 1 worked month.....0,25 points
 - Programming experience in R (3.9).....4 points
 - 1 worked month.....0,25 points
 - Programming experience in Google Earth Engine (3.10).....5 points
 - 1 worked month.....0,25 points
 - Programming experience in GIS applications (3.11).....4 points
 - 1 worked month.....0,25 points
 - Experience in preparation of research proposals for funding agencies and writing technical reports (3.12).....5 points
 - 1 worked month.....0,25 points

- 5.1.3. **Other curricular merits such as:** the following items will be evaluated from 0 to 15 points:
- Excellent writing and communication skills in English (3.4).....5 points
 - B2 level.....2,5 points
 - C1 level.....4 points
 - C2/native level.....5 points
 - Excellent publication record in top journals (3.5).....5 points
 - 1 relevant publication.....0,5 points
 - Track record that shows the ability to work both autonomously and in collaborative environments and projects (3.13).....5 points
 - Subjective evaluation
- 5.2. If deemed appropriate, the CAS may request the necessary documentation to verify the alleged merits, at any time during the processing of the application. Failure to provide the required documentation within the requested period may result in suspension of the application.
- 5.3. In the event of a tie for the highest score, the CAS will interview each of the matched applicants to better determine the merits and assign the order of precedence between them. If the CAS deems it appropriate, it will also be able to interview applicants who have obtained up to a maximum of 10 points difference, with respect to the candidate who has obtained the highest score. In the interview, the CAS will assess more accurately the merits and abilities determined in the call, especially the skills and knowledge related to section 3. The maximum score of the interview will be 15 points, which is they will have to add to the points obtained in the valuation of the rest of merits. If the interview score requires it, the maximum score of 100 points may be exceeded.
- 5.4. Applications that do not score 60 points on the evaluation cannot be selected or included in the booking list.
- 5.5. The selection process will take place after the closure of the admission of applications, and it is expected to be resolved around June 30. The date of incorporation is expected to be, at the latest, in August 1st, 2024.

6. Personal data

- 6.1. By formalizing and submitting the application, the applicants accept the rules of the call and give their consent for the processing of the necessary personal data to take part in the call, and for the rest of the processing of the selection process or other actions that derive from it, in accordance with current regulations.
- 6.2. The personal data contained in the application will be processed with the following specifications:
- 6.2.1. Activity identification: Selection and provision of jobs.
 - 6.2.2. Responsible for data processing: Catalan Institute of Classical Archaeology (ICAC); plaça d'en Rovellat, s/n, 43003 Tarragona, telephone (+34) 977 24 91 33, info@icac.cat, www.icac.cat.
 - 6.2.3. Data protection officer: delegatpd@icac.cat, Catalan Institute of Classical Archeology, Rovellat Square, s/n, 43003 Tarragona, telephone (+34) 977 24 91 33.
 - 6.2.4. Purpose of the processing of personal data: selection and provision of jobs through public calls.
 - 6.2.5. Legal basis: consent, mission carried out in the public interest provided for in Royal Legislative Decree 5/2015, of 30 October, approving the revised text of the Law on the Basic Statute of Public Employees.
 - 6.2.6. Recipients: publication on the ICAC website of the procedures for the selection process, in accordance with current regulations; the applicant will be informed that their details will be published on the ICAC website; people who access the information by applying the principle of active advertising provided for in the transparency regulations; the competent public

administrations in this field, in compliance with the applicable legal obligation. Personal data will not be transferred outside the European Union.

- 6.2.7. Rights of interested parties: it will be possible to access the provided personal data, request its rectification or deletion, oppose its treatment and request its limitation, by sending an explicit request to delegatpd@icac.cat
- 6.2.8. Term for retention of personal data: following the calendar for the retention and disposal of documents of the Administration of the Generalitat de Catalunya.
- 6.2.9. Complaint: If the applicant's rights regarding the protection of personal data are breached, especially when they have not satisfactorily exercised of their rights, they may file a complaint with the Data Protection Authority through its website: www.apdcat.cat.

7. Follow-up of the call according to the hiring principles at the ICAC

- 7.1. This call is based on compliance with the principles approved by the ICAC in the framework of the OTM-R program for the accreditation of HRS4R. These principles are set out in the document entitled *Principis per contractar el personal de l'ICAC* (Principles for Hiring ICAC Staff), which can be found on the Institution's website.
- 7.2. In compliance with the principles above, this call will be evaluated in accordance with the procedure set out in the present document.
- 7.3. It is necessary to specifically mention the principles that ensure fair and transparent hiring based on equal employment opportunities, to prevent discrimination in the hiring of personnel based on gender, marital status, sexual orientation, disability, nationality, political or religious beliefs, or any other form of discrimination. This is to comply with the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers promoted by the European Commission to ensure fair and transparent hiring.

Tarragona, May 29, 2024
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