

The Forest Science and Technology Centre of Catalonia (CTFC) is a research center affiliated with the Generalitat de Catalunya (the Catalan government), and it reports to the Ministry responsible for forest issues.

The CTFC is a CERCA center and a government accredited TECNIO agent (developer of public technology).

## IT Senior Specialist (Full-Stack Developer)

---

Reference: 26-05-00029

### POSITION OVERVIEW

The Forest Science and Technology Centre of Catalonia (CTFC) is seeking a **IT Senior Specialist with a Full-Stack profile**, with proven expertise in software development, database management, web architectures, geospatial systems, and advanced computing environments.

The selected candidate will join the CTFC's ICT development area and will contribute to research, innovation, and technology transfer projects related to forest management, bioeconomy, biodiversity, landscape dynamics, and climate change adaptation.

This position combines **full-stack development, scientific programming, forest growth simulation, decision support systems (DSS), big data processing, georeferenced databases, APIs, data visualization, and application deployment in cloud, DevOps, and high-performance computing environments.**

Experience in projects integrating simulation **models, forest data, geographic information, web services, analytical platforms, and digital tools supporting land-use planning and management will be particularly valued.**

### ABOUT CTFC

CTFC is a public research center affiliated with the Government of Catalonia, operating under the department responsible for forestry. It is part of the **CERCA** system and is accredited as a **TECNIO** technology developer, recognizing its role in public technology transfer.

CTFC is located in Solsona (Pre-Pyrenees), with a team of approximately 200 professionals. The center produces more than 100 scientific publications annually and has an annual turnover of around €13 million.

Its research and innovation activities are structured into four main programs:

1. Multifunctional Forest Management
2. Landscape Dynamics
3. Biodiversity
4. Bioeconomy, Health, and Governance

## TERMS OF THE APPOINTMENT

---

1. Start date: Immediate
2. Contract type: Permanent contract for scientific and technical activities
3. Working hours: Full-time (37.5 hours per week)
4. Work location: On-site at CTFC facilities in Solsona
5. Flexible on-site arrangement after completion of the probation period
6. Professional category: KTT and R&I Specialist N1 or N0
7. Salary: According to qualifications and demonstrated experience

## KEY RESPONSABILITIES

---

1. Develop full-stack IT applications for research, innovation, and technology transfer projects.
2. Develop and maintain Decision Support Systems (DSS) applied to forest and land management.
3. Develop and integrate forest growth simulation models, management scenarios, and risk analysis tools.
4. Design, maintain, and optimize georeferenced databases for processing, exploiting, and analyzing forest and environmental data.
5. Develop APIs, web services, and backend components to ensure interoperability between systems, models, and data platforms.
6. Develop web interfaces and data visualization tools for researchers, public administrations, companies, and other stakeholders.
7. Participate in application deployment in Linux environments, Docker containers, Kubernetes, cloud platforms, and, where applicable, high-performance computing environments.
8. Provide technical support for data collection, preprocessing, integration, and analysis of forest, geospatial, and environmental data.
9. Contribute to technical and scientific-technical documentation of developments.
10. Collaborate in dissemination, demonstration, and transfer of project results.
11. Contribute to the development, coordination, and technical management of other ICT projects.
12. Perform any other duties assigned according to the nature of the role.

## MANDATORY REQUIREMENTS

---

1. Degree in Computer Engineering, Software Engineering, Data Science, Geoinformation, Telecommunications, or a related field.
2. Proven professional experience of 5 years or more in a similar position.
3. Experience in full-stack development using Python and JavaScript/TypeScript.
4. Experience in backend development, APIs, and web services.
5. Experience in frontend development with modern frameworks.
6. Experience in database analysis, design, and management.
7. Advanced knowledge of Debian-based Linux systems.
8. Experience in virtualization, containers, and application deployment using Docker and Kubernetes.
9. Experience with version control systems, especially Git.
10. Experience developing decision support systems.

11. Knowledge of integrating solutions compliant with GDPR requirements.
12. Familiarity with IT tools aligned with agile methodologies.
13. Ability to write technical and scientific-technical documentation.

## DESIRABLE REQUIREMENTS

---

1. Experience in DevOps, CI/CD pipelines, deployment automation, and service monitoring.
2. Experience with PostgreSQL and PostGIS.
3. Experience in API development using Node.js, FastAPI, or similar technologies.
4. Experience in frontend development with Vue.js, Angular, or similar frameworks.
5. Experience in hybrid mobile application development.
6. Knowledge of GIS systems, OGC services, raster/vector data, and geospatial tools.
7. Experience in big data processing, data pipelines, ETL/ELT processes, or scientific data architectures.
8. Experience in high-performance computing (HPC), supercomputing environments, or cluster-based model execution.
9. Knowledge of simulation, environmental modeling, forest models, or forest growth models.
10. Experience integrating scientific models into web applications or operational platforms.
11. Knowledge of cloud computing, microservices, and scalable architectures.
12. Experience in technical coordination of teams and research, innovation, or technology transfer projects.
13. Experience in European projects, including technical documentation, deliverables, and ICT development reporting.

## SOFT COMPETENCES

---

1. Strong planning and organizational skills.
2. Ability to work in multidisciplinary teams.
3. Strong communication skills with technical staff, researchers, and external stakeholders.
4. Ability to translate scientific or technical needs into functional digital solutions.
5. Responsible, autonomous, and highly committed individual.
6. Initiative and proactivity.
7. Flexibility and adaptability.
8. Results-oriented mindset and focus on code quality.
9. Interest in applied research, forest management, and technology transfer.

## CONTACT

---

Centre de Ciència i Tecnologia Forestal de Catalunya  
Ctra. de St. Llorenç de Morunys, km 2 (direc. Port del Comte)  
25280 Solsona  
Tel. (+34) 973 48 17 52  
E-mail: [dep.personal@ctfc.cat](mailto:dep.personal@ctfc.cat)  
<https://ctfc.cat/>  
<https://ctfc.cat/transparencia.php>

## SELECTION PROCESS AND CRITERIA

---

The selection process will be carried out through a two-stage procedure. The first stage will primarily target candidates from the consortium entities, given the nature of the position. The second stage will include the remaining candidates who have correctly submitted their application within the established deadline.

- Applications: candidates must submit a CV and a motivation letter via [www.ctfc.cat/registre.php](http://www.ctfc.cat/registre.php) **by 01 June 2026 at 14:00**, indicating the reference code of the job offer. Applications referring to another person will not be accepted.

The position subject to this call may be declared vacant if the selection committee considers that, despite the existence of candidates who meet the minimum requirements, none is deemed suitable for the position.

**The CTFC guarantees an open, transparent, and merit-based selection process (OTM-R) for all registered applications, thus avoiding any bias based on gender, origin, age, ideology, or any other potentially discriminatory circumstances.**

Inclusion policy: Priority will be given to candidates with a recognized and accredited disability of 33% or higher, provided that the disability is compatible with the proper performance of the position.

Estimated timeline	
15 working days	Publication and dissemination of the job offer: CTFC website, SOC Office, and other communication channels.
Following 2 working days	Pre-selection: verification of compliance with the minimum requirements and assessment of desirable conditions. Informative email sent to non-eligible CVs.
Following 2 working days	Selection committee meeting: interviews with shortlisted eligible candidates.  Minutes of the Selection Committee stating the name of the selected candidate and the reasons for the selection. Publication of the resolution on the CTFC job portal identifying the selected candidate.  Informative email sent to interviewed eligible candidates who were not selected.
Following 1 working day	Submission to Human Resources of the official documentation required to process the employment contract and coordination of the contract start date.
June-July2026 (approximately)	Start of the contract.