

LE STUDIUM RESEARCH FELLOWSHIP

JUNON — Ambition, Research & Development CVL Programme

(Open to international experienced researchers)

Research Project: JUNON : digital twins working for natural resources

Research Fields: Computing Science, AI, data integration

CONTEXT

LE STUDIUM Loire Valley Institute for Advanced Studies is recruiting an international experienced scientist specialised in computing science with skills and experience in machine learning and data integration. The successful candidate will be invited for a up to a **eight-month fellowship** to join a major regional research program called JUNON, launched in 2022. The programme aims to build digital twins and to design digital services to improve the monitoring and understanding of the environment, for better management of natural resources. It connects a well-established network of regional research partners (BRGM, INRAE, CNRS, Universities of Orléans and Tours) in various domains (soil, water, atmosphere) and nonacademic partners. The ambition is to place environmental and digital research at the heart of the regional innovation strategy and to bring useful data and services to multiple socio-economic partners. As a Research Fellow attached to the Loire Valley Institute for advanced studies, s/he will be part of an outward-looking and stimulating pluri-disciplinary scientific and international community.

SCIENTIFIC RESEARCH CONTEXT

The successful candidate will be invited to finalize the last parts of the initial developments done over the past two years with the PRISME research team (<https://www.univ-orleans.fr/fr/prisme> - Images, Robotics, Automation and Signal (IRAUS) department), the LIFAT research team (<https://lifat.univ-tours.fr/> - Laboratory of Fundamental and Applied Computer Science) and the BRGM Data and environmental teams, to achieve the goals of the JUNON project before September 2026.

MISSION OF THE RESEARCH SCIENTIST

The successful candidate **has proven experience in Python development, data integration and machine learning projects involving heterogeneous data**. S/he is expected to collaborate and exchange with the previous experts involved in the project and to produce efficient work to achieve the project goals.

The candidate will be expected to work at 3 levels:

- 1 Infrastructure (data integration)
- 2 Integration of algorithms and the machine learning protocol (or even a contribution to development)
- 3 Creation of intelligent interfaces enabling non-expert users to manipulate or use the various digital twins in a very user-friendly way.

Therefore, this involves the candidate:

- Understands the DNA of the different twins in construction to be able to reformulate them as an operational package
- Is involved in the development of one or several digital twins.
- Participates in some specific computing developments regarding the advances.

LE STUDIUM Loire Valley Institute for Advanced Studies

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<http://www.lestudium-ias.com>

ESSENTIAL SKILLS AND EXPERIENCE

LE STUDIUM Loire Valley Institute for Advanced Studies is looking to recruit an experienced researcher profile with:

- Significant track records in the field of computing science with skills in machine learning
- Experience in the development of complex software
- Demonstrated expertise for applied projects and functional applications, ideally in the environmental field
- Knowledge and experience in digital twin analysis / IOT systems
- Demonstrated expertise in developing end to end framework

ELIGIBILITY CRITERIA

Applicant researchers will:

- Be in possession of a Doctoral degree and at least five years of full-time equivalent research experience after PhD
- Be national or long-term resident of a country other than France. Long-term residents are researchers who spent a period of full-time research activity of at least 5 consecutive (without breaks in research) years in a country other than France.
- Comply with the following mobility rule: applicants must not have resided or carried out their main activity (work, etc.) in France for more than 12 months in the 3 years immediately prior to the deadline of application.

CONDITIONS OF EMPLOYMENT

The position is based in Orléans, France and offers **up to 8 consecutive months of residency** to an experienced scientist currently residing in a country other than France.

The successful candidate will be principally working with BGRM Data team and will collaborate with other JUNON Programme's partners at the universities of Orléans, Tours and at Centre INRAE Val de Loire.

The scientific working languages are English and French.

Entitlements detailed in the French labor contract of employment include:

- A personal salary under a French labor contract signed with LE STUDIUM
- Rental costs of a fully furnished apartment for the candidate and her/his family.
- Logistics and administrative assistance by a member of LE STUDIUM operational team before and during the fellowship (visa, housing, bank, insurance, schooling...).
- Regular Invitations to scientific meetings

⇒ **The position is expected to be filled as soon as possible, no later than January 2026.**

APPLICATION PROCESS

Online application via LE STUDIUM platform: **Apply section**

<https://www.lestudium-ias.com/recruitment>

The deadline for application is October 31st, 2025.

The application shall consist of three elements (in English).

- A completed online LE STUDIUM application form with personal information and details of track records;
- A curriculum vitae of maximum five pages including information not in the online application;
- A motivation letter

Upload documents as pdf files.

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