

JOB OFFER: Semantic Web Developer for Digital Humanities

Quota: Full time

Mission: You will carry out developments for the publication and querying of humanities sciences data in the semantic web and linked open data (LOD). In collaboration with an engineer in charge of the publication of the datasets, you will deploy a visual query editor written in Javascript (Sparnatural), adapting it for the various scientific domains, and you will work towards its integration with different data publication platforms. Research will focus on simultaneous querying of independent data graphs using either federated query or mediation system.

Activities:

Packaging of the Javascript Sparnatural visual query editor:

- Development of tools, processes and documentation to facilitate its semi-automatic configuration from the analysis of the data to be queried
- Development of new functionalities (typically new ways of query results visualisation)
- Development of an easily installed/replicated backend+frontend solution for browsing RDF data, integrating the visual query editor
- Analysis, configuration and deployment of Sparnatural to query HumaNum Isidore and/or Nakala systems
- Analysis/implementation of query rewriting algorithms such as PerfectRef and MiniCon
- Development in Java, integrating these algorithms for simultaneously querying several web knowledge bases
- Evolutions and optimizations of the JEE OpenArcheo web application, including the Javascript Sparnatural module and the Java Distributed Query Module

Competencies:

Proficiency in Javascript (Webpack appreciated), Java / JEE
Knowledge of semantic Web principles, tools and standards
Knowledge ontologies principles (CIDOC-CRM appreciated)
Experience in database administration, semantic web platforms
Experience in developing and verifying a test plan
Experience in evaluating and updating functional and technical documentation
Ability to work in teams
Analytical thinking skills
Speaking French would be a plus

Work context:

The “Maison des Sciences de l'Homme Val de Loire” (MSH VdL¹) is a federative structure of research teams from Human and Social Sciences (HSS). It is placed under the supervision of the CNRS and the universities of Tours and Orléans, in France. It currently has 22 research teams covering all the HSS disciplines. It offers services to researchers, including a Digital Lab that provides services to support projects in Digital Humanities (DH). The MSH VdL deploys its activities in connection with the Very Large Research Infrastructure Huma-Num, contributing to European projects and infrastructures such as ARIADNEplus and 4CH (H2020), in the EOSC

¹ <https://www.msh-vdl.fr/>



Maison des Sciences de l'Homme Val de Loire

framework (European Open Science Cloud). Your missions will be mainly carried out at the headquarters of MSH VdL in Tours. Under the authority of the MSH VdL Director, you will be integrated in the Digital Lab IT pole, composed of 3 people, and collaborate with the SPARNA Company and LIFAT researchers (computer science).

Duration: 12 months

Expected hiring date: March 1, 2021

Remuneration: between 1810€ and 2280€ net/month, according to experience.

Weekly working hours: 35 hours per week, with 46 days of annual leave

Desired level of education: PhD or engineering degree

How to apply: Candidates are invited to send, before January 29, 2021, a CV of 2 pages maximum, with a cover letter and possibly letters of reference, only in PDF format and electronically at **lydia.seabra@univ-tours.fr**

Selected candidates will be called for an interview.