SIFR project — **LIRMM**

Research engineer position available in Montpellier, France
(Web architect – JEE, Ruby/RoR – Semantic web technologies)
2016-2017

Title:

Research engineer position: Web architect – JEE, Ruby/RoR – Semantic web technologies

Information:

Employer:	University of Montpellier
Context:	SIFR project (Semantic Indexing of French Biomedical Data Resources) - ANR
When:	September 2016 – for 12 months minimum eventually extensible
Where:	LIRMM, Montpellier (collaboration with the NCBO (Stanford University, USA.))

Keywords:

Web development, (biomedical)ontologies & terminologies, semantic web, knowledge engineering, biomedical data integration, semantic interoperability, linked data, scientific data workflows, annotation, text mining.

Technologies:

Web development, Java/JEE, Ruby/Rails, MySQL, RESTful web services, XML/JSON, Web client technologies (HTML5, JavaScript, CSS, Ajax), Semantic Web technologies (OWL, RDF, SPARQL, 4store, Linked data), NCBO technologies (BioPortal).

Context:

The SIFR project (http://www.lirmm.fr/sifr/) investigates the scientific and technical challenges in building ontology-based services to leverage biomedical ontologies and terminologies in indexing, mining and retrieval of French biomedical data. The project is mainly funded by the French ANR. The applications are in biomedicine and agronomy.

We are seeking a motivated, curious and interested Web developer to take hands on the different platforms and prototypes developed within the project. You will work closely with another research engineer and a small team of researchers. One main aspect will be the development, and support as well as the integration of new features inside our local instances of BioPortal: http://bioportal.lirmm.fr and http://agroportal.lirmm.fr

Detailed description:

The volume of data in biomedicine is constantly increasing. Despite a large adoption of English in science, a significant quantity of these data uses the French language. The community has turned toward terminologies and ontologies to design semantic indexes of data that leverage the medical knowledge for better information mining and retrieval. However, besides the existence of various English tools, there are considerably less ontologies available in French and there is a strong lack of related tools and services to exploit them. This lack does not match the huge amount of biomedical data produced in French, especially in the clinical world (e.g., electronic health records).

Within the SIFR project we build an ontology-based indexing workflow similar to what exists for English resources (e.g., NCBO Annotator) but dedicated and specialized for French and make it available as a service for the community. We will use this workflow for semantic indexing of French biomedical data.

The project develops and support two semantic web ontology repositories both for the French biomedical domain and for the international agronomic domain. The ontology portal features hosting, search, versioning, visualization, comment, etc. All of these within a fully semantic web compliant infrastructure. The main objective of this project is to enable straightforward use of ontologies, avoiding data managers and researchers the burden to deal with complex knowledge engineering issues.

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We are reusing the technologies developed by the National Center for Biomedical Ontologies at Stanford University: the BioPortal Web application (http://bioportal.bioontology.org) and the BioPortal service architecture (http://data.bioontology.org/documentation). Please refer to our GitHub repository for more detail: https://github.com/sifrproject

The developer will have:

- to manage, administrate and modify two local instances of BioPortal (as described http://www.bioontology.org/wiki/index.php/Category:NCBO_Virtual_Appliance) both for the SIFR and AgroPortal projects.

- to modify the data workflows in the platform to customize it for our project needs.

- to integrate new prototypes such as BioTex (http://tubo.lirmm.fr/biotex) within the platform.

- to implement new data workflows within the platform such as mapping extraction, plant linked data, semantic distances

- to work remotely on an day-to-day basis (supervisor will be at Stanford)

Expected profile:

- Web developer with good knowledge of JEE technologies and Ruby/Ruby On rails.

- Experience with semantic Web technologies, especially RDF/SPARQL

- Computer science engineer or master degree. PhD applicants are welcome and preferable if they can demonstrate a strong development experience and commitment.

- Between 1 and 5 years of experience. Including experience in private companies.

- Excellent technical skills to push prototypes into production environment.

- Excellent remote working capabilities (emails, trackers, collaborative tools, etc.)

- Interested by the Semantic Web field and cutting edge Web technologies.

- Interested by open and linked data.

- Perfect English oral and writing skills.

- Few knowledge with French language with objective to learn the language during the contract.

- Excellent writing skills as reports, documentations, and technical notes will always be necessary.

- International trips accepted (collaboration with Stanford) and possibility to get a visa for the USA.

- Autonomy and initiative, take on technical decisions within the project and justify choices.

- Friendly person to join a small research team in Montpellier and to listen to their needs.

- Eventually interested in research valorization of the outcomes (everything will be published).

- Open source developer.

Application:

For more information about this position, please contact Clement Jonquet (jonquet@lirmm.fr). To apply, please send an email including links to (NO ATTACHED DOCUMENTS) the following:

- a motivation letter describing an explanation of YOUR interest for the position;

- a curriculum vitae describing your experience and the matches with the expected profile;

- copies of diplomas and other relevant certificates;

- names and contact details of referees.

Contract:

- The engineer will be hired under the "Ingénieur d'étude" status (social security, etc. included).

- Salary will be included between 1400 and 1600€ net per month depending on experience.

- The contract will be for 1 year with possible extensions.