Artelys

Java and/or Web R&D developer

Artelys develops **world class decision-support software** for the design and operations of complex energy systems. Artelys gathers a 50-people dynamic team and is headquartered in Paris, with offices in London and Montreal.

1 Job and responsibilities

As part of a high-level **R&D** team, you tap into your programming skills, your experience of complex architectures, your obsession for clean code and your eagerness to provide great solutions to the needs of our clients in order to:

- • Design and implement scalable and evolutive **architectures**.
- • Contribute to the constant improvement of our **computing performance** and **user experience**.
- • Provide our optimization experts and data analysts with capabilities to treat **ever growing data volumes**.
- • Keep our solutions on the cutting edge of technology.

Software development projects at Artelys – few examples:

Large scale R&D project starting in spring 2017, **NEXT** enables the development of a deeply innovative software for the design of flexible electric distribution systems (**smart grids**). NEXT will fill a gap that is critical to the **energy transition**. The software will be based on a **client-server architecture**, combining massive data processing from **heterogeneous data sources** (DBMS, NoSQL, web services) such as load curves of a whole city (order of magnitude: hundreds of thousands of time series), ergonomic visualization tools (geographical data, time series, KPI, etc.) and advanced **optimization**, **artificial intelligence** and **high performance computing** techniques.
Partners : ADEME, Gaz Electricité Grenoble, INRIA, L2EP
http://www.ademe.fr/next

Artelys develops **METIS**, an innovative software for multi-energy investments planning and market structuration, used by the **European Commission**. The software is an essential tool in the

design of **tomorrow's sustainable energy systems**. METIS is based on a **modular architecture** to adapt to the modelling of a constantly evolving energy system. It offers **advanced data visualization** functionalities (times series, cartographic data, dashboards,…) and relies on **parallel computing** to reach optimal efficiency in computational optimization.
http://ec.europa.eu/energy/en/data-analysis/energy-modelling/metis

2   Abilities and profile

Artelys Crystal is implemented in Java, C++, Python and JavaScript. We rely on reference technology, for optimization (FICO Xpress, Artelys Knitro, Boost), data management (DBMS, NoSQL), *backend* (*framework* Spring, WildFly, Node.js) and *frontend* (KnockoutJS, ReactJS, Backbone.js, D3.js, JavaFX).

You might be the one we are looking for if:

- (Java developer) You are a high-level **polyvalent** developer, with extensive knowledge of object oriented programming languages (Java, C++) and optionally Java swing, Python, JavaScript, Rest/SOAP
- (Web developer) You are a high-level **polyvalent** developer, with extensive knowledge of web programming (JavaScript, HTML CSS, Rest/SOAP) and object oriented programming languages (Java, C++). Knowledge of JavaScript libraries (see above) is a plus.
- You master software architecture and *design patterns*.
- You consider developing a robust and scalable server application and designing intuitive and ergonomic interfaces as two sides of the same coin.
- You wouldn't dissociate programming from using development environments, version control systems (git/svn), automation servers (jenkins), and dependency managers (Ivy, Maven).
- You are aware NoSQL is not an association against databases.
- You are autonomous, rigorous and have a strong team spirit.

As a fast-growing company, Artelys is looking for curious and creative teammates, solicitous of the impact of their work and thrilled to contribute to the development of our business.