

## Company Description

BC3 is an internationally recognized research center on climate change, with a multidisciplinary team of high-profile researchers, aims to foster the creation of knowledge with a multidisciplinary scientific approach in order to support better decisions for a more sustainable society.

## Information

 Deadline: 2020-02-17  
 Category: Academia  
 Province: Bizkaia

 Country: Basque Country  
 City: Leioa

## Company

BC3 Basque Centre for Climate Change



## Main functions, requisites & benefits

### Main functions

The Basque Centre for Climate Change (BC3) is looking for candidates who can support its strategic activities related to integrated data science and collaborative, integrated modeling on the semantic web. The selected candidates will contribute to the ARIES (ARtificial Intelligence for Ecosystem Services) project powered by the k.LAB software stack, a semantic web infrastructure that uses artificial intelligence to build computational solutions to environment, policy and sustainability problems. The candidate will contribute to the design and implementation of the modeling engine, which assembles network-available model components and data and compiles the assembled graph into a runnable dataflow. The candidate should be conversant with simulation modeling principles, machine reasoning using OWL and its Java implementations (OWLAPI), open source GIS (e.g. Geotools), machine learning (Weka), and be aware of, or open to quickly learn, corresponding technologies on the Java platform. Understanding of REST, Spring and Websockets (for communication with the front-end) will be necessary. Key responsibilities: Collaborate to developing, strengthening and debugging the back-end and/or the client components of the k.LAB software stack (and more specifically the modeling engine). Collaborate to the definition of unit tests and code review policies for both k.LAB and the associated data/model products. Participate in all aspects of the development life cycle including analysis, design, development, documentation, release and deployment. Communicate and coordinate with both technical and non-technical stakeholders.

### Requisites

Main requirements: Strong analytical skills and an ability to learn quickly and to think outside the box. Our work is very innovative and you should expect your job to be as intellectually challenging as rewarding. A strong motivation and a desire to learn and explore new technologies are a must. A degree in computer science (or similar), or very good reasons not to have one! Great communication skills, including a very good knowledge of the English language both written and spoken. Most of our communication is in English although knowledge of Spanish and/or Italian will be an asset. An understanding of artificial intelligence, in particular knowledge representation, formal semantics and machine reasoning. A working knowledge of geomatics (OGC services etc.) and dynamic system modelling. An ability to work independently on projects and issues, with projects that include multiple and diverse technologies and scope. An ability to work with a diverse, multi-location and multi-lingual team. Three or more years of experience in as many as possible of these technologies: Experience in developing Java software, with mature design, coding, testing and debugging skills in a JVM environment, but also comfortable and happy to work in a multi-language environment. Full fluency with Git and Maven technologies across the entire build-test-release cycle. Experience with an agile development process with industry-standard issue tracking, continuous development and deployment (BC3 uses the Atlassian toolchain: Jira, Bamboo, Confluence). Experience in designing and implementing high-performance REST service APIs and back-ends, preferably with Spring. Familiarity with modern web technologies and experience with progressive Javascript framework, ideally Vue.js. Familiarity with Docker containers and deploying production software. Knowledge and experience developing with and for the Eclipse environment. Experience building and