

Deadline: until filled



APPLY 30-2024

# Research Software Professional

INTEGRATED BIOSPHERE FUTURES (IBF) RESEARCH GROUP

The **IBF Research Group**, part of the IIASA **Biodiversity and Natural Resources (BNR) Program**, is looking for a talented Full Stack Web Developer to join our team. This position will play a pivotal role in shaping and implementing an advanced IT ecosystem aimed at facilitating integrated modeling deployment, using cutting-edge technologies.

## THE ROLE

The key responsibilities include managing large spatially explicit data, automating workflows, deploying open and modular cloud solutions, and creating web-based platforms for sharing data and models with various stakeholders. While a strong technical background is essential, an interest in science is also advantageous as you'll collaborate closely with a global team working on sustainable land and water management solutions.

The ideal candidate will excel in both frontend and backend development, with proficiency in technologies such as Python (FastAPI, Flask, Django), JavaScript (Vue.js, React.js, Next.js, Nuxt.js), TypeScript, CSS (Tailwind, SASS, SCSS), and HTML. Experience with Kubernetes and AWS is beneficial, as is a solid understanding of clean architecture principles and familiarity with databases like MySQL, MongoDB, and Postgres. Attention to detail, organizational skills, analytical thinking, and effective task management are essential. You should be adept at all stages of agile software development, from design to deployment, and possess a keen interest in embracing new tools, languages, workflows.

## BACKGROUND

The IBF Research Group adopts an integrated approach to sustainable land use and ecosystems modeling taking into account i) interactions between different economic sectors, including agriculture, forestry, bioenergy, and fisheries, ii) synergies and trade-offs between multiple societal objectives, including, but not limited to, green-house gas emissions and climate change mitigation, climate change impacts and adaptation, food security, sustainable nutrient and water management, and biodiversity, iii) across different spatial and temporal scales, going from pixel through the country level up to the global scale, and from annual to a hundred-year time horizon.

A core part of the research is based on the **GLOBIOM model** which is central to a growing modelers community supporting national and international decision makers around the world. GLOBIOM is part of a growing ecosystem of models, within and outside of IIASA, currently being consolidated into the new **iBIOM** modeling framework. The team owns significant high-throughput compute infrastructure for parallel model runs and leverages on-premises and cloud infrastructure for version control and automated testing.

## MAIN TASKS AND RESPONSIBILITIES

- Designing, developing, and maintaining robust and scalable web applications following clean architecture principles.
- Collaborating with cross-functional teams to gather and define requirements, and to ensure seamless integration of frontend and backend components.
- Writing clean, maintainable, and efficient code that adheres to best practices and coding standards.
- Implementing responsive and user-friendly interfaces using modern frontend frameworks and libraries.
- Optimizing application performance and security.
- Participating in all aspects of agile software development, including design, implementation, debugging, optimization, testing, and deployment.
- Conducting unit and integration testing to ensure the reliability and stability of applications.
- Participating in code reviews and providing constructive feedback to team members.
- Keeping up-to-date with the latest trends and technologies in web development, clean architecture, and databases.

## REQUIREMENTS

- BS, MS, or equivalent degree in computer science, engineering, or a related field (or equivalent work experience).
- Proven experience as a Full Stack Web Developer or similar role.
- Strong proficiency in Python (FastAPI, Flask, Django) for backend development.
- Extensive knowledge of JavaScript (Vue.js, React.js, Next.js, Nuxt.js) for frontend development.
- Experience with TypeScript, CSS preprocessors (Tailwind, SASS, SCSS), and HTML.
- Familiarity with databases such as MySQL, MongoDB, and Postgres; familiarity with Kubernetes and AWS is a plus.
- Familiarity with Agile methodologies, particularly Scrum.
- Excellent debugging and optimization skills.
- Understanding and experience with clean architecture principles.
- Great attention to detail, organizational skills, and an analytical mind.
- Interest in learning new tools, languages and workflows.
- Excellent communication skills in English (verbal and written).
- Ability to work effectively in a collaborative team environment.
- Flexible and adaptable in responding to deadlines.

## APPOINTMENT TERMS

The selected candidate should be available to take up the position as soon as possible in 2024 (start date negotiable). We offer an initial fixed-term, one-year, full-time (40 hours per week) employment contract, with the possibility of extension thereafter. Eligible applicants wishing to work part-time hours may be considered.

Duties will be carried out at the IIASA premises in Laxenburg, near Vienna in Austria.

The successful candidate will be appointed in accordance with the [IIASA Research Software Professionals Profiles](#).

## WE OFFER

- An international atmosphere and pleasant working environment in a historic market town surrounded by green areas.
- The possibility to contribute to environmental sciences for sustainability and global wellbeing.
- The opportunity to deepen and improve knowledge and scientific profile.
- Career development perspectives.
- **An attractive salary which is exempt from income tax in Austria and negotiable, based on the qualifications, skills and experience of the selected individual and *at least*:**  
EUR 53,670.00 (Subject to deductions for health insurance and/or social security.)

## IIASA SALARIES ARE

- Not directly comparable with other employers in

- IIASA offers an interdisciplinary and international workplace, and the possibility to interact with researchers of different nationalities, with strong ties to a world-wide network of research institutions engaged in environmental systems research. The successful candidate must be able to work in, and have respect for, an intercultural environment, and [IIASA core values](#).

Austria, due to the unique legal status and privileges granted to IIASA.

- Subject to the principle of income aggregation (Progressionsvorbehalt in German).

## OTHER BENEFITS

- Educational subsidies for children of school age enrolled in private schools in Austria.
- A generous annual leave entitlement.
- Relocation allowances and paid home leave for employees in scientific and professional categories hired from international locations.
- The possibility to work up to 100 days per year in home office (within Austria)
- Assistance for newcomers to Austria with visa, work and residency permit applications.
- Support finding accommodation in Austria.

Further details [here](#).

## About IIASA

IIASA is committed to a working environment that promotes equality, diversity, tolerance and inclusion within its workforce. This is reflected in our [IIASA core values](#) and the [IIASA Gender Equality Plan \(GEP\)](#). We encourage qualified candidates from all religious, ethnic, and social backgrounds to apply. In the case that candidates are equally qualified, preference will be given to applicants from countries where IIASA has a [Member Organization](#).

## Further Information

For further information about this opportunity please contact [Michael Le Gohebel](#), BNR/IBF Program and Project Officer or [Petr Havlik](#), BNR Program Director/IBF Research Group Leader.

For general information about working at IIASA, contact: [recruitment@iiasa.ac.at](mailto:recruitment@iiasa.ac.at)

## Applications

**In order to apply for this opportunity, you will need to provide the following documents:**

- A cover letter outlining your motivation for and fit to the position
- A detailed Curriculum Vitae
- The names, addresses (including e-mail), and telephone numbers of two work-related reference givers.

**Deadline for receipt of applications: until filled**

**APPLY**

