Deadline: 04 December 2026



APPLY 23-2026

Jr. Research Software Engineer

INTEGRATED ASSESSMENT AND CLIMATE CHANGE (IACC)

The Energy, Climate, and Environment (ECE) Program is one of the leading scientific research institutions in the domain of integrated assessment of climate change and the systems transition to implement the Sustainable Development Goals (SDGs). In addition to its own high-impact research, ECE provides a range of services to the broader research community: researchers and research software engineers at ECE are managing multiple open-source tools to facilitate modeling and analysis of climate change mitigation policies and emissions scenarios. These tools and packages are developed in an open, collaborative process implementing best practices of scientific software development.

As part of its mission, ECE is hosting dozens of interactive scenario web databases (aka "Scenario Explorer" instances). These databases form an integral part of the infrastructure for research conducted at ECE and in the wider integrated-assessment research community and they are also a key tool for dissemination of scientific insights and results.

The databases were used in particular for assessments by the *Intergovernmental Panel on Climate Change* (IPCC), collaborations with partners in the *Integrated Assessment Modeling Consortium* (IAMC) and research projects funded by the EU's Horizon 2020/Horizon Europe programs. For an example of our work, visit the Scenario Compass Initiative[1], which is the most prominent instance of this service currently deployed. For more information on the underlying infrastructure and related tools, please refer to the scenario services documentation.[2]

JOB PROFILE

The successful candidate will join a team of research software engineers and software developers working with researchers at ECE and collaborating institutions on further developing and continuously improving these tools to support energy- and climate-related research in ECE and in the wider academic community. An interest in the scientific content of the software tools – climate change and energy transition research – will help communication within the multi-disciplinary teams and developing a deeper understanding of the user needs. A key objective is to establish a sustainable framework for collaborative agentic AI development that could eventually be extended across the institute.

The job profile will be comprised of two key activities:

- Supporting modelling teams from around the world in the use of the Scenario Explorer infrastructure and further develop the Python packages for scenario analysis and validation.
- Maintaining and developing a shared AI skill marketplace that ECE researchers use for agentic AI integration in their

research. This combines data-safety and confidentiality rules, agent skills and rules that capture scientific workflows and connectors (MCP servers). This work covers reviewing and merging contributions from researchers, managing the test suite and continuous integration, user support for installation and onboarding, documenting components, and helping researchers turn recurring workflows into reusable tools.

Candidates should have strong Python experience in writing maintainable and scalable tools including development of CI/CD pipelines and experience with git version management using platforms like GitHub. They should have worked hands-on with agentic coding tools such as Claude Code, developed and evaluated custom agent harness configurations, have familiarity with LLM APIs including their cost and data-retention trade-offs, and show a careful approach to data governance, since the work involves handling embargoed data, manuscripts under review and colleagues' unpublished work.

MAIN TASKS AND RESPONSIBILITIES

- The successful candidate will closely collaborate with research software developers and researchers at the IIASA ECE Program as well as international partners on the following tasks:
- Lead the conceptual development and implementation of new tools and features for scenario analysis and data visualization to support research and science communication based on requirements elicitation and dialogue with scientific staff and other relevant user groups.
- Collaborate effectively through established software-development practices (pull requests, code reviews, iterative feedback) and is eager to adapt and improve these workflows for teams working with AI coding agents.
- Manage a central repository of reusable AI agent skills and tools, specifically defining standards for their development, documentation, testing, and secure deployment, and facilitating their sharing across the team.
- Serve as contact point for software developers and research software engineers at other institutions that are implementing tools and interfaces based on the ECE infrastructure (e.g., in Horizon Europe projects or activities of the IAMC).
- Contribute to ongoing research activities by implementing new features in the scientific software packages in close collaboration with scientific staff and with an aim to identify automation opportunities, integrate AI agents with existing scientific software and infrastructure (where possible), and ensure reliable, secure, and scalable solutions.
- Provide support and guidance on best-practice of scientific software development and the use of tools developed in ECE to researchers at IIASA and collaborators in the wider community.
- Documentation of the software stack and all modules at high professional standards.

SKILLS, QUALIFICATIONS & EXPERIENCE

Education and Background

- BS or MS (or equivalent, e.g. DI*FH*) in a field related to energy systems, environmental sciences or a related field, or has corresponding experience in computer science and software development. They should have a strong interest in scientific software development.

APPOINTMENT TERMS

The successful candidate should be available to take up the position **as soon as possible - No later than January 2027**.

The place of work is IIASA in Laxenburg, near Vienna, Austria (home office options available).

The successful candidate will be appointed as a Junior Research Software Engineer (**S1**) in accordance with the IIASA profiles for research software professional

Essential skills and competencies:

- Strong Python experience in writing maintainable and scalable tools.
- Interest in AI, Machine Learning, Large Language Models, and their application within scientific environments.
- Good understanding of software development principles, testing, debugging, including development of CI/CD pipelines and experience with git version management using platforms like GitHub.
- Strong analytical and problem-solving skills and the ability to work carefully with large and complex scientific datasets.
- Ability and willingness to understand scientific models and the relationships between model inputs, calculations, and results.
- Strong ability and willingness to work collaboratively in an interdisciplinary team and communicate with both technical colleagues and scientific domain experts.
- Excellent written and spoken English.

Desirable skills:

- Experience with RDMS, preferably Postgres, including database performance analysis and optimization
- Automated data validation, quality assurance, statistical methods, and anomaly detection.
- REST APIs and database-backed web applications
- Previous experience working with researchers or in interdisciplinary scientific teams.

careers.

Applications will first be reviewed against the requirements listed above. All candidates who meet these requirements will be invited to complete an assessment using the IIASA database infrastructure and scenario analysis, focused on the technical skills and research domain relevant for the position. The assessment is a mandatory step for everyone. Only candidates who pass it will be invited to an interview with the selection committee.

WE OFFER

- **1-year** full-time fixed-term contract (100%, 40 hrs/week), with the possibility of extension thereafter. Flexible arrangements on duration can be discussed, and part-time arrangements will also be considered.
- An attractive annual salary starting at **EUR 53,754.00**, exempt from income tax in Austria (social insurance deductions still apply), negotiable depending on the research level you are appointed to.
- The possibility to contribute to environmental sciences for sustainability and global wellbeing.
- An international atmosphere and pleasant working environment in a historic market town surrounded by green areas.

IIASA salaries are:

- Not directly comparable with other employers in Austria, due to the unique legal status and privileges granted to IIASA.
- Subject to the principle of income aggregation (Progressionsvorbehalt in German).

ADDITIONAL 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 who are hired from international locations.
- 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. 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:

WAGNER PAT - Program and Project Officer (IACC, S3, TISS)

HUPPMAN Daniel - Senior Research Scholar - (IACC)

KREY Volker - Research Group Leader and Principal Research Scholar (IACC, S3)

VAN RUIJVEN Bas - Research Group Leader and Principal Research Scholar (S3); Principal Research Scholar (IACC, TISS)

Applications

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

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

Deadline for receipt of applications: 04 December 2026

APPLY