

DestinE EO Application Scientist

Job Req ID: 14364

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Vacancy Type: Fixed-Term

Date Posted: 10 December 2021

Vacancy in the Directorate of Earth Observation Programmes.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. We therefore welcome applications from all qualified candidates irrespective of gender, sexual orientation, ethnicity, beliefs, age, disability or other characteristics. Applications from women are encouraged.

This is a non-renewable post for a limited duration of four years and is classified A2-A4 on the Coordinated Organisations' salary scale.

Location

ESRIN, Frascati, Italy

Description

DestinE EO Application Scientist in the Data Applications Division, Science, Applications & Climate Department, Directorate of Earth Observation Programmes.

The objective of the Destination Earth (DestinE) Initiative is to develop a very high-precision digital model of the Earth to monitor and simulate natural and human activity, and to develop and test scenarios that would enable more sustainable development and support European environmental policies. DestinE will contribute to the European Commission's Green Deal and Digital Strategy.

The DestinE Initiative will be implemented by ESA in partnership with the ECMWF (the European Centre for Medium-Range Weather Forecasts) and EUMETSAT under the system authority of the European Commission (DG CNECT). ESA has a leadership role in the definition of the DestinE architecture and its operational services. It is also responsible for the DestinE Core Service Platform implementation and operations as well as the DestinE system integration and validation.

Complementary to DestinE, an ESA Programme Proposal called Digital Twin Earth & Universe (DTE&U) is in preparation. Should this programme also be approved for implementation, major aspects of the programme implementation would also fall under your responsibility.

Duties

Under the hierarchical authority of the Head of the Data Applications Division and the functional authority of the DestinE Project Manager, you will be in charge of managing the development of applications, tools and platforms within the DestinE initiative.

Your responsibilities will include:

- cooperating on a day-to-day basis with the EOP teams working on DTE activities;
- supervising the implementation of relevant thematic application and platform functions for the Digital Twin/DestinE Core Service Platform;

- engaging key users and stakeholders through workshops and cooperation with national activities;
- identifying, assessing and implementing innovative ideas for shared platform services and tools in support of digital twins;
- leveraging leading-edge ICT innovation in order to facilitate EO exploitation by EO/data scientists, application developers and value-adders;
- identifying, assessing and integrating relevant analysis capabilities at national and regional level in support of the initial DestinE objectives;
- advancing the use of innovative data access and analytics environments based on state-of-the art technologies (e.g. data cube);
- liaising with related ESA activities implementing preparatory R&D projects with a view to contributing to DestinE and preparing the expansion of DestinE to new domains;
- supporting the programme proposal definition on Digital Twin Earth & Universe (DTE&U) and its subsequent implementation at Application level.

Technical competencies

In-depth Experience with leading-edge Earth Observation platforms supporting EO data exploitation, in particular in the area of data cubes, AI and modelling of Earth System processes

Knowledge of Earth system models implemented in HPC environments

Experience in the management and monitoring of research and development activities

Hands-on experience in the combined use of EO data and models for characterising land surface processes, ecosystem status or human-Earth system interaction at national and regional scales

Behavioural competencies

Result Orientation

Operational Efficiency

Fostering Cooperation

Relationship Management

Continuous Improvement

Forward Thinking

Education

A Ph.D. in a relevant discipline such as engineering, Earth science, computer science, environment, ecology, ecosystem science or data science is required for this post.

Additional requirements

Specialist professional experience in one of the following areas would be an advantage:

- AI-based processing of geospatial or environmental data
- EO data assimilation in Earth system or ecosystem models

Other information

For behavioural competencies expected from ESA staff in general, please refer to the [ESA Competency Framework](#).

The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.

The Agency may require applicants to undergo selection tests.

At the Agency we value diversity and we welcome people with disabilities. Whenever possible, we seek to accommodate individuals with disabilities by providing the necessary support at the workplace. The Human Resources Department can also provide assistance during the recruitment process. If you would like to discuss this further please contact us at contact.human.resources@esa.int.

Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the

United Kingdom and Canada, Latvia, Lithuania and Slovenia.

According to the ESA Convention, the recruitment of staff must take into account an adequate distribution of posts among nationals of the ESA Member States*. When short-listing for an interview, priority will first be given to internal candidates and secondly to external candidates from under-represented or balanced Member States*. (<https://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf>)

In view of the limited duration of this post, internal candidates are strongly advised to contact their HR advisor before applying.

In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment.

Recruitment will normally be at the first grade in the band (A2); however, if the candidate selected has little or no experience, the position may be filled at A1 level.

*Member States, Associate Members or Cooperating States.