Job Req ID: 12042
Agency: ESA

Young Graduate Trainee for Software Engineering for Innovative Web Services

EUROPEAN SPACE AGENCY

Young Graduate Trainee Opportunity in the Directorate of EO 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.

Post
Young Graduate Trainee for Software Engineering for Innovative Web Services
This post is classified F1.

Location
ESRIN, Frascati, Italy

Our team and mission
The Mission Management and Ground Segment Department is responsible for the management, design, coordination and operation of the ESA Earth Observation (EO) Payload Data Ground Segment (PDGS). The PDGS is made up of systems deployed at a number of facilities dedicated to the acquisition, archiving, processing and dissemination of data from Earth observation missions.

The Department is also responsible for the data acquisition and dissemination of several non-ESA missions.

To carry out the PDGS activities, the Department procures services from European Industry.

Interested candidates are encouraged to visit the ESA website: http://www.esa.int

Field(s) of activity/research for the traineeship
The ESA Ground Segment and Data Management Division is responsible for providing data to the technical and scientific Earth observation communities. A vast amount of data is discoverable through the EOP websites (e.g.https://earth.esa.int/) and available online for immediate download.

The Division has implemented a modern website environment enabling the dynamic discovery of web content through searching, content tagging and intuitive search practices. The web environment is integrated with several other systems (data catalogue, ESA thesauri for naming conventions, etc.) and synchronisations are regularly carried out in the background to ensure correct information in all environments. A large amount of content is currently stored in the web environment and is largely unstructured and manually maintained.

The current architecture is expected to evolve further in response to findings related to the web analytics and the need for improved communication between all systems. Additionally, more autonomy in content management is envisioned, along with an analysis into possible mitigation methods for eventual and frequent system obsolescence.

Together with the increase in publishing contents, the application of modern technology (e.g. related to content linking and structuring) should also be taken into account as part of the evolution programme.

You will have the opportunity to contribute to the process by analysing and investigating applicable technologies and methodologies available for the preparation of an evolution roadmap.

All systems face issues with obsolescence.

For reference, the main website currently managed is http://earth.esa.int

Your main tasks will consist of:

- analysing website data on traffic patterns, behaviour, navigation and user flows;
- analysing internet trends to identify future technology needs and internet patterns;
- identifying methodologies and technologies for data and content linking;
- investigating the possibilities related to more autonomous content management;
- identifying practices for optimising system synchronisation and communication;
- analysing obsolescence risk in the EO Web Systems;
- proposing mitigation methods for system obsolescence;
- contributing to the preparation of a Web Evolution Roadmap;
- preparing a report showing the main results of the activity.

Technical competencies
Knowledge of relevant technical domains
Relevant experience gained during internships/project work
Breadth of exposure coming from past and/or current research/activities
Knowledge of ESA and its programmes/projects

Behavioural competencies
Result Orientation
Operational Efficiency
Fostering Cooperation
Relationship Management
Continuous Improvement
Forward Thinking

Education
You should have just completed, or be in the final year of a university course at Master's Level in a technical or scientific discipline specifically in artificial intelligence, computer science, informatics or related fields.

Additional requirements
- Familiarity with web analytics software and search engine console software
- Familiarity with system optimisation methods and systems thinking
- Background in software engineering and design is considered an asset. In addition, you should be familiar with Earth observation data exploitation.

You should have good interpersonal and communication skills and should be able to work in a multi-cultural environment, both independently and as part of a team.
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.
During the interview motivation and overall professional perspective/career goals will also be explored.

Other information
For behavioural competencies expected from ESA staff in general, please refer to the ESA Competency Framework.

The closing date for applications is 21 March 2021.

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, and the United Kingdom. Nationals from Latvia and Slovenia, as Associate Member States, or Canada as a Cooperating State, can apply as well as those from Bulgaria, Cyprus, Lithuania and Slovakia as European Cooperating States (ECS).
Priority will first be given to candidates from under-represented Member States.
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