

Job Title: Digital Technologies Engineer

Req ID 8632 - Posted 21/06/2019



EUROPEAN SPACE AGENCY

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. Applications from women are encouraged.

Post

Digital Technologies Engineer

This post is for a limited duration of 4 years, non-renewable, and is classified A2-A4 on the Coordinated Organisations' salary scale.

Location

ESRIN, Frascati, Italy

Description

Digital Technologies Engineer in the Φ -lab Explore Office, Φ -Lab Division, Future Systems Department, Directorate of Earth Observation Programmes.

Duties

Reporting to the Head of Office, the postholder will be part of a dynamic and multidisciplinary team. The Φ -lab exists to accelerate the future of Earth Observation, by helping Europe's EO and space ecosystem adopt disruptive technologies and methods. We are currently working with artificial intelligence, small satellites (e.g. cubesats), drones, hyperspectral imaging data and virtual reality. High-altitude pseudo satellites (HAPS), quantum computing technologies and distributed ledgers are on our to-do list. Φ -lab is part of the Directorate's Φ -Department developing future systems for EO. It also hosts ESA's InCubed programme, providing agile support to industrial innovation in order to exploit new EO markets. Φ -lab also convenes experts from across the world to develop research agendas on the relevance for EO of emerging technology topics including AI, distributed ledgers and quantum computing.

The postholder will:

- commission and oversee innovative EO projects that exploit rapid advances in digital technologies, notably AI and especially machine learning, to encourage adoption of these technologies in Europe's EO ecosystem;
- contribute to development of the European AI and EO ecosystem, encouraging especially companies new to EO, IT companies, leading universities and high-tech startups;
- assist with Φ -lab internal sprints that rapidly prototype new EO solutions capitalising on AI/ML techniques;
- initiate and prepare technical specifications, statements of work and oversee exploratory projects for competitive tendering and execution by industry;
- contribute to setting up an AI suite for EO challenges, helping with the data preparation and curation, analytics and preparation of large-scale training datasets;
- collaborate with partners in academia, the private sector and the startup ecosystem to foster innovative EO solutions and shape future EO missions;
- provide technical and management support to the Φ -lab team.

Technical competencies

Knowledge of geoinformation technologies

Knowledge of application of Machine Learning to big data analytics

Ability to shape and manage projects

Ability to incubate new ideas

Behavioural competencies

Innovation & Creativity
Problem Solving
Self Motivation

Education

A Master's degree or equivalent in a relevant discipline, e.g. aerospace, engineering, computer science, applied physics.

Additional requirements

- Good knowledge of EO, NewSpace and AI ecosystems and trends
- Work experience in project management
- Ability to communicate, network and teamwork
- Experience of working with industry, innovation and the startup ecosystem an advantage
- Entrepreneurial mindset
- Leadership in shaping new opportunities and innovative applications

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.

The closing date for applications is 19 July 2019.

If you require support with your application due to a disability, please email 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 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 external candidates from under-represented Member States. In view of the limited duration of this post, internal candidates are strongly advised to contact their HR advisor before applying. (<http://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf>)

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.