

Job Title: Software Engineer

Req ID 9843 - Posted 11/03/2020



EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Technology, Engineering and Quality.

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

Software Engineer

This position is classified A2-A4 on the Coordinated Organisations' salary scale.

This position forms part of ESA's Advance Recruitment Scheme which is established to provide appropriate staffing resources when requirements materialise. Appointments are therefore made for an initial duration of two years upon which the selected candidate may be appointed to a permanent post in the Agency.

Location

ESTEC, Noordwijk, The Netherlands

Description

The Software Systems Division deals with development techniques for ground and space systems. This covers all life-cycle aspects from requirements specification to development, verification, validation and maintenance. Within this Division, the Software Technology Section aims at providing functional support to all projects in terms of Development Environment facilities and exploring the use of new technologies in the different areas.

To support the development of ESA projects, a Common Software Development Environment (CSDE) platform has been put in place which provides the following features:

- requirements engineering: DOORS
- project planning and issue tracking: JIRA
- code management: BitBucket
- document collaboration: Confluence
- user management: Crowd
- server automation: Jenkins
- code change tracking: FishEye
- repository manager: Nexus
- file-sharing: ownCloud

To improve how space systems are developed and enable new types of missions, the following topics are currently being explored:

- artificial intelligence (machine learning, planning and scheduling, explainable AI) , non-deterministic and adaptive systems, their verification and validation;
- big data technologies, including data warehousing and analysis for downstream applications;
- development of formal methods for the specification and development of software;
- cybersecurity aspects, including blockchain technologies;
- requirements engineering and management;
- model-based system and software engineering;

- data modelling and specification;
- quantum computing.

Candidates interested are encouraged to visit ESA website: www.esa.int

Duties

You will initially be assigned as a Software Engineer responsible for development and operations support to different space and R&D projects. Main tasks and responsibilities encompass the installation, development, operation, maintenance and support of the DevOps infrastructure used by projects including:

- Collaborative Software Development Environment (CSDE) and all the related tools and applications (Eclipse, JIRA, Jenkins, Confluence, Virtualisation technologies, DOORS);
- Software Verification Facilities (SVF) and related tools such as Gitlab, compilers (GCC, LLVM), debuggers, software simulation and emulation (including HW-in-the-loop) and static analysis of code (Coverity, Polyspace, SonarQube);
- Satellite Reference DataBase (SRDB), related tools (SQL, Oracle, PostgreSQL) and DataOps;
- Electrical Ground Support Equipment (EGSE) reference facility and related development technologies;
- Web sites and related applications.

You will be expected to interface with the different project teams and possibly provide their training on the various tools. You may also have to support definition and execution of Division R&D activities in your field of expertise.

Technical competencies

Experience in CSDE tools

A good understanding of modern software engineering methods and tools, R&D trends and the industrial landscape

Experience in software development projects

Behavioural competencies

Results Orientation

Planning & Organisation

Communication

Continuous Learning

Teamwork

Education

A Master's degree or equivalent qualification in computer science and/or electrical engineering.

Additional requirements

Broad experience in CSDE tools, in particular Atlassian products, plus experience in software development projects, notably static code analysis.

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 08 April 2020.

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, 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 internal candidates and secondly to external candidates from under-represented Member States.
(<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.