



Talent driven  
culture.

# Flight Software Engineer (M/F)

Ref.<sup>a</sup> T20242

Our client is a space systems engineering company, delivering advanced design solutions and turn-key space SW systems. Building on a solid team of highly motivated and specialized engineers, is now a reference player in the European space sector, leading in the areas of Mission Analysis, Guidance, Navigation and Control, Global Navigation Satellite Systems Technologies, Ground Segment Systems and Earth Observation applications.

We are looking for a **Flight Software Engineer for Automatic Code Generation and Validation** to join **Flight Software Systems Competence Centre (FS CC)**, forming part of the Avionics Business Unit at Lisbon premises. The work of the FS CC is oriented to the specification, design, development and validation of Embedded Software and Hardware systems for space vehicles, including GNC systems, GNSS, Image processing, verification facilities, etc.

As part of the team, you'll have the chance to work in Launchers and Space Missions with different and amazing objectives, such as, Earth Observation, Space Debris Removal and study of Objects re-entry in the Earth's Atmosphere.

**Location:** Lisbon, Portugal

## Main Accountabilities:


- Lead the automatic code generation process for GNC systems, from Simulink models to C source code.
- Contribution to modelling guidelines to ensure the generation of source code according to the applicable standards.
- Participation in the design and implementation of Processor-In-the-Loop and Hardware-In-the-Loop test-benches, to verify a Guidance-Navigation and Control system, including the development of the real-time simulation environment, hardware and software interfaces, etc.
- Participation in the software validation and system qualification.
- Participation in the development of the embedded Software for GNC system, interfacing with the code generated automatically.
- Interaction with other Competence Centres and different technical areas inside the Company, including GNC, GNSS and others.

If you meet the above requirements, please send your application via email: [careers@qsr.consulting](mailto:careers@qsr.consulting) with reference to T20242\_Rec\_ Flight Software Engineer.

## Requirements & Qualifications:

- Required: a recognized engineering degree (Computer Sciences, Electrical, Electronic, Telecommunications) or a related degree (e.g., Aerospace) with demonstrable experience in computer systems and software engineering.
- Desired: postgraduate studies (M.Sc. or Ph.D.) with a focus on software engineering, real-time software or embedded systems design.
- At least 1 to 2 years in the practical application of the domains relevant to the post (experience obtained while obtaining relevant MSc & PhD studies could also be considered as applicable for the position). The position will be tailored to the level of experience. Industrial experience in the aerospace sector and/or critical software development will be viewed positively.
- Required:
  - Knowledge of Model based design and implementation: Matlab/Simulink design and automatic code generation with Embedded Coder.
  - Solid theoretical background in Software Engineering, including testing and verification approaches along the Software life-cycle: SW verification and validation, Unit and integration testing.
  - Good programming skills (C, C++, Python) and knowledge of software configuration control (e.g. GIT, SVN).
  - Willingness to participate in the generation of project documentation, including requirements specifications, SW design, and other engineering documentation.
- Desired:
  - Knowledge in the development of PIL / HIL test benches (RTTB, FVB, SCOE, EGSE, Unit testers) for the validation and qualification of software systems.
  - DevOps infrastructure: Continuous integration strategies and tools (Jenkins, Bamboo, SonarQube, etc...).
  - Practical experience in communication buses, drivers and associated communication protocols (e.g. Bus CAN, 1553, SpaceWire, Serial line, etc.).
- Appreciated:
  - Practical experience in development of embedded systems in related industrial context as e.g. ESA programmes, Aero/Automotive/Rail, or other experience in safety critical software (e.g in European primes, OBSW providers, etc.).
  - Experience or knowledge of SW Coding Standards (MISRA-C).
  - Experience in multithread applications, real-time operating systems (eg. RTEMS, VxWorks, FreeRTOS, etc.), or embedded computers (eg. LEON, ARM).

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- Language Skills:
    - Required: Portuguese, English.
    - Appreciated: Spanish.

**Offer:**

- Wage package appropriate to the presented experience;
- Career development opportunity;
- Employment contract established directly with our client company;
- Work in highly innovative projects with ESA (European Space Agency).

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