

ANY WAVES

SPACE, UNMUTED

JOB OFFER

EMBEDDED SOFTWARE ENGINEER (M / F)

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+ About Anywaves

Anywaves is an international space technology company specialising in antennas, RF electronics, embedded software, avionics and integrated payload subsystems for satellite missions. Building on more than 25 years of engineering heritage, we bring together complementary expertise from our teams in Toulouse, France, Hautcharage, Luxembourg, and Austin, Texas. From design and project management to testing, industrialisation and production, we develop high-performance technologies for commercial and institutional customers worldwide. Our solutions support satellite communication, navigation, Earth observation and other demanding space applications, from individual products to complete RF payload subsystems.

With more than 120 employees representing a wide range of nationalities and technical backgrounds, Anywaves combines the agility and close collaboration of an entrepreneurial company with the capabilities of a growing international group. Joining Anywaves means contributing directly to ambitious space programmes, solving complex technical challenges and helping shape the next generation of satellite technology.

About the position

As an Embedded Software Engineer, you will develop, integrate, and verify real-time embedded software for microcontroller- and FPGA-based systems. You will work closely with hardware and system engineers to deliver high-performance solutions, contributing to architecture, implementation, debugging, testing, and system validation activities.

Key responsibilities

- Contribute to product development lifecycle (design, verification, qualification, maintenance)
- Contribute to the software requirements and test strategy definitions
- Design in-house IP blocks for our core products
- Develop software development kit to support customer application development
- Definition of test and validation protocols.
- Develop test software and drivers to support unit, integration, and system testing on target
- Develop and maintain documentation (design documentation, ICDs, user manual, ...)
- Collaborate with architects, hardware, software and firmware engineers
- Debug with lab equipment (spectrum analyser, signal generator, power meter, ...)
- Capability to produce technical documentation compliant with European space industry standards (ECSS / EN9100).

Job requirements

- Sound knowledge of digital communications theory and signal processing
- ARM family architecture knowledge
- C/C++, assembler and low-level software programming
- Real-Time OS (RTOS), multithreading programming (User/Kernel domains).
- Embedded Linux platforms knowledge (PetaLinux)
- Experience with FPGA design flows and Xilinx SoC platforms
- Scripting fluency with Python and/or Tcl
- Experience with configuration management (Git, Gerrit, Bugzilla, Jira)
- Experience using lab equipment for testing and validation

Preferred skills

- Have a strong technical foundation in C (Embedded Hardware/Software: Real-time microcontrollers and SoCs), APIs/SDKs, and version control.
- Experience with MATLAB/Simulink and auto-coding
- Background knowledge of Electronics (RF, digital, analog)
- Working knowledge of interface protocols (UART, CAN, RS422/485, Ethernet, USB, SpW, I2C)
- Proficiency in a hardware description language (VHDL) is a plus

Profile required

- **Communication Skills:** Excellent written and oral communication skills to effectively convey technical information.
- **Analytical and Problem-Solving Skills:** Strong analytical skills and a proven ability to solve complex problems.
- **Language Skills:** Fluent in English; proficiency in French or German is a significant asset.
- **Educational Background:** Master's degree or Engineering degree (Bac+5) Electronics, or a related field.
- **Experience:** A first successful experience (3+ years) in embedded software design. Prior experience in the space sector (NewSpace / SDR) or RF communication systems is highly valued.
- **Autonomy:** Ability to strike the right balance between working fully autonomously and seeking expertise / support for problem-solving.
- The successful candidate must hold or be eligible to obtain a SECRET security clearance in accordance with national regulations and applicable EU, ESA, and NATO requirements.

We invite you to submit your CV and cover letter, showcasing your motivation for the position and positive impacts to the company to jobs@anywaves.lu . Expose and demonstrate how your skills align with the job requirements to make a meaningful impact.

In accordance with the General Data Protection Regulation (GDPR), your personal data will be processed solely for recruitment purposes. For any questions regarding the processing of your data or to exercise your rights, please contact dpo@anywaves.lu

Start: As soon as possible

Contract type: Permanent

Location: Hautcharage, Luxembourg

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