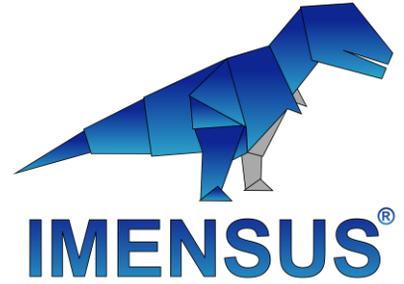


Working Student (Werkstudent)

Software Engineer (Embedded Systems)



IMENSUS GmbH is a young, dynamic startup focused on exploration technology for the mining and other industries. Our mission is to become the first autonomous geoscientific service provider by integrating robotics and AI. To achieve this, we are developing an innovative exploration platform for resource exploration and site investigation.

To advance this ambitious project, we are looking for engineering expertise, coupled with a drive to build something from scratch and the commitment to take on long-term responsibility as we redefine the industry.

15 to 20 h/week – 15 €/h – start immediately – on site

Your tasks:

We are currently developing the sensing nodes (geophones) and are transitioning from functional prototypes to robust, field-ready products. In this role, you will support the improvement of our embedded firmware and gain hands-on experience with real-time data acquisition, software integration, and system testing with the potential to evolve into robotic programming using ROS, as well as autonomous system integrations for our rover platform and periphery.

- ✓ Development and improvement of embedded C++ firmware
- ✓ Work with microcontrollers, RTOS-based systems, and hardware interfaces
- ✓ Help improve data handling and communication between system components
- ✓ Participate in debugging sessions, system validation, and testing (lab & field)

You should have:

- ✓ Strong knowledge of Embedded C/C++
- ✓ Solid understanding of real-time systems concepts (tasks, scheduling, concurrency)
- ✓ Experience with microcontrollers and hardware interfaces
- ✓ Structured software development using Git
- ✓ Ability to debug both in software and on hardware level

Nice to have

- ✓ Experience with ESP32 or similar
- ✓ Familiarity with wireless communication protocols
- ✓ Basic understanding of signal processing or high-rate sampling systems
- ✓ Experience with web dashboards or system visualization
- ✓ Hands-on hardware debugging (oscilloscope, logic analyser)

What you'll gain!

- ✓ Responsibility beyond typical student tasks — your work will run in real operations!
- ✓ Practical experience in embedded & autonomous systems as well as robotics
- ✓ Hands-on experience developing a real industrial product from prototype to field deployment
- ✓ The opportunity to contribute your own ideas and actively shape the technical evolution of the product
- ✓ Direct collaboration with our core engineering team and the opportunity to grow into a long-term technical role

Captured your interest?

If you find this exciting opportunity appealing and wish to learn more, do not hesitate to contact us. With you, we can shape the future of resource exploration! Feel free to send any questions and your informal application with CV to:

Email: contact@imensusresources.com

Website: www.imensusesources.com

