

Software Developer/Engineer (m/w/d)

(100% Employment)

[Qnami](#) develops fundamental new technology using quantum mechanics. The control and measurement of the state of a single electron enables us to measure what could never be measured before. We call this quantum sensing and are enthusiastically developing this technique to improve people's lives and the world.

Qnami is a magnet for talents looking to join the quantum revolution at the pulse. Multicultural, open-minded, and highly-skilled, we come from all over the world and have a deep passion for our work. Both business and scientific minded, each of us contributes with our unique skills plus a strong work ethic and enthusiastic spirit – because we believe in what we do. We value diversity and have created a self-managed, flexible team culture that supports employees' development and enables us to live a healthy, well-balanced life.

We develop and commercialize applications of [NV Quantum Sensors](#) (Nitrogen-Vacancy), leveraging proprietary technology and unique know-how. Our first commercial product, the Qnami [ProteusQ](#) is a complete quantum microscope system. It is the first scanning NV microscope for analysis of magnetic materials at atomic-scale and features state-of-the-art electronics and software. The flexible design allows for future adjustments and scaling, expansion, and functionality additions. With our new product line, the Qnami ProteusQ-LT, we aim to extend its capabilities towards cryogenic temperatures.

To support our ongoing product development of the Qnami ProteusQ-LT, we are seeking:

Software Developer/Engineer (m/w/d)

As a Software Developer/Engineer, you will work with all layers of our code. Your focus will be to integrate our new product the Qnami ProteusQ-LT into our LabQ framework and to ensure its seamless operation.

Our primary stack is Python 3, PyQt, Jupyter notebook and a variety of low-level communication protocols and APIs (VISA, Serial, USB, TCP, UDP, etc.) managing the connected hardware (including C/C++ libraries).

In this position, your responsibilities will include:

- Maintaining a coherent, well-structured, and well-documented codebase between Qnami ProteusQ and Qnami ProteusQ-LT within our LabQ framework
- Integrating, testing, and qualifying various hardware components required to operate the Qnami ProteusQ-LT
- Implementation of efficient operation logic in Python for quantum sensing applications



- Crafting of intuitive graphical user interfaces in PyQt to operate the Qnami ProteusQ quantum microscope
- Ensuring that the implementation fits the instrumentation needs

Qnami offers you a great working environment and a chance to learn and grow:

- Obtain an in-depth experience in a deep-tech quantum company
- Develop an understanding of cutting-edge quantum science with diamond-based materials and build-up expertise in scanning probe microscopy
- Be a core part of a motivated and energetic startup team who values both scientific free climbing and human connection
- Enjoy comfortable, modern office space and the opportunity to connect with other entrepreneurs in one of Switzerland's premiere startup spaces

You are a passionate and creative physicist/engineer. You value work in a multi-disciplinary team, like to share ideas and tackle complex challenges. Your qualifications include:

- A master's degree in Computer Science/Electrical Engineering (or equivalent)
- 1-3 years working experience as a Software Developer
- Solid Python 3.8 knowledge
- Hands-on experience with the PyQt/Qt graphical framework (knowledge in C/C++ is an advantage)
- Proven ability to develop and maintain structured, modular code by using standard development tools and release processes (such as Git, CI/CD, unit tests etc.)
- Experience in debugging software and systems as well as the ability to analyze, evaluate, and solve problems
- Passion for organization, testing and comprehensibility
- Proficiency in applied mathematics
- Ability to work alone as well as a part of a team
- Contributions to open-source projects is seen as a plus
- Knowledge in quantum physics is a plus

You will have responsibilities and a direct contribution to the growth of the company and the emergence of a quantum industry 1.0. Your salary will be based on your experience. The role is based in Muttenz, Switzerland.

Qnami was founded in 2017 in Basel, at the cross-roads of Switzerland, Germany and France, and builds on the work of Professor Patrick Maletinsky from the University of Basel. We explore implementation and application of quantum nitrogen-vacancy (NV) color center in diamond for high-performance sensing devices.

Please send your application (CV, motivation letter and examples of previous projects in English) to jobs@qnami.ch.