

## Quantum Computing Software Engineer

**SaxonQ** is a unique deep tech startup company using internationally patented technology to bring room temperature, mobile quantum computers to market. Founded in 2021, our mobile quantum computers are based on NV (nitrogen-vacancy) centers in diamond. Please find further information at [www.saxonq.com](http://www.saxonq.com).

**Small. Mobile. Energy Efficient. We bring quantum computing to the desktop.**

SaxonQ Headquarters is located in Leipzig, Germany, in the free state of Saxony. Our leaders hail from the University of Leipzig, the cradle of solid-state quantum mechanics founded by Werner Heisenberg and Felix Bloch in 1920's. The team of internationally renowned physicists has researched NV centers in diamond and wide-gap semiconductors for over 20 years and work with patented technology to develop the quantum compute stack. Seed funding has been secured via a group of private investors along with additional research and development funding from top European agencies.

We are looking for two software programmers to work together with our quantum hardware engineers to establish high quality quantum gates based on NV centers and nuclear spins, controlled by microwave and RF pulses, and further develop

- qubit initialization and calibration
- optimization of gate operations, coupling of qubits
- implementation of benchmarking procedures
- implementation of quantum error correction
- implementation of quantum codes
- documentation

[join@saxonq.com](mailto:join@saxonq.com)

A top skillset includes:

- a. MSc in applied or theoretical physics, engineering, computer science or related field
- b. theoretical or experimental experience with one of the following specialties:
  - atomic systems, quantum circuits, quantum information science,
  - quantum error correction, software-hardware interfaces
- c. excellent verbal and written communication skills
- d. experience with programming languages, e.g., C++, C#, Matlab, python, Qiskit or Q#

An over-the-top skillset includes:

- a. PhD in applied or theoretical physics, engineering, computer science or related field
- b. prior experience with color centers in diamond, EPR/NMR pulse sequences, quantum processors or quantum computing
- c. deep knowledge of software concepts, python and openQASM

We offer a full-time position, limited to 3 years with the opportunity to become permanent member of staff thereafter. The office location will be Leipzig or Ulm.

*SaxonQ is an equal opportunity employer and does not permit or condone any form of discrimination, positive or negative, or otherwise, on the basis of race, caste, national origin, religion, disability, gender, sexual orientation, union membership, political affiliation, or age.*