

Embedded SW Engineer

JOB OFFER

The Company

3Brain is a young, fast-growing, dynamic company focusing on brain technologies, one of the most fascinating research and business sectors with multiple applications and impacts on human life. 3Brain's mission is to provide state of the art technology to support life science research and improve human health. In particular, 3Brain develops, manufactures and distributes high-quality instruments based on our patented CMOS multi-electrode array, a high-resolution neuro-electronic chip. The company is headquartered in Switzerland nearby Zurich, has an SW R&D office in Italy, and has installed its products in laboratories and pharma companies worldwide also thanks to its network of distributors covering among others US, Canada, China and Japan.

More info: <http://www.3brain.com/about.html>

Job description

For the next expansion step, 3Brain is looking for an embedded SW engineer to reinforce our R&D team in Genova, Italy. You will help developing new embedded systems for high-speed data acquisition devices and improve and maintain the existing product lines. You will design low-level firmware architectures for the new products and develop drivers to communicate with our hardware (i.e. electronics and FPGA). Maintenance, support and extension of our existing Python-based development and test framework will also be part of your responsibilities. Furthermore, you will act as an interface between the application SW- and HW-development. Therefore, a good understanding of HW-environment is essential.

In particular, your tasks involve:

- Creating embedded SW systems and architectures in a Linux-based environment
- Design and implement the SW infrastructure for an embedded device handling Giga-bits of data, such as data acquisition through DMA, memory management, control of peripheral devices through SPI, I2C, SDIO, WLAN, USB, etc.
- Driver design of FPGA-based hardware accelerators (in C/C++)
- Maintenance and extension of Python development and test framework



- Help in the implementation of development- and production-test-tools
- Coordinating system integration of firmware and application-level software

Your Qualifications

- BSc/MSc in Electrical Engineering or hardware-oriented Computer Science
- ARM-based microprocessor programming (C/C++)
- Driver development
- Good level with Linux operating system
- Proficiency in Python programming
- Cross-compilation toolchain for embedded Linux (e.g. Yocto or Buildroot)
- Basic understanding of electronics
- Fluency in English
- Background in signal processing (optional)

What We Offer

- A dynamic and stimulating work environment in a young, emerging company
- Possibility of professional growth
- Never-ending source of technical challenges
- Having a big impact on our product development
- Place of work Genova, Italy

To apply send your CV and short motivation letter to info@3brain.com, subject:
[Embedded SW Engineer](#)

