

Embedded SW Engineer

THE COMPANY

3Brain is a young, dynamic, internationally active 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. We develop, manufacture and distribute high-quality instruments based on our patented CMOS multi-electrode array, a high-resolution neuro-electronic chip. The company is located in Switzerland nearby Zurich and has installed its products worldwide in laboratories and pharma companies 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. You will help developing new embedded systems for high-speed data acquisition devices and improve and maintain the existing product lines. You will design the SW architectures for the new products and develop drivers to communicate with the hardware (i.e. electronics and FPGA). Moreover, you will have to evaluate and implement algorithms running on an embedded device to do feature extraction of neurophysiological signals in real-time.

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, such as update manager, data acquisition through DMA, memory management, control of peripheral devices through SPI, I2C, SDIO, WLAN, USB, etc.
- Driver design of FPGA-based hardware accelerators
- Implementation of algorithms for real-time data processing and feature extraction (i.e. spike detection, compression, etc.)
- Implementing user interfaces at the device level

YOUR QUALIFICATIONS

- BSc/MSc in Electrical Engineering or Computer Science
- Experience in ARM-based microprocessor programming (C/C++)
- Hardware driver development
- Good level with Linux operating system
- Basic understanding of digital electronics
- Fluency in English
- Background in signal processing

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 products

To apply send an email with CV and short motivation letter to info@3brain.com, subject: embedded SW engineering