Virtual reality software developer for cognitive neuroscience

The Laboratory of Cognitive Neuroscience (LNCO, EPFL, Switzerland) at the newly established Center for Neuroprosthetics (CNP) is looking for a Virtual Reality software engineer to develop custom-built programs to support experimental work in neuroscience, virtual reality (VR), and robotics.

Context

Research is conducted at LNCO in a multidisciplinary team consisting of biologists, engineers, psychologists, medical doctors, and computer scientists. Our research is focused on the understanding of the brain mechanisms involved in embodied cognition (involving own body perception, movement, and consciousness) and its relevance for neuro-rehabilitation and neuroprosthetics. In the laboratory, the integration of signals from vision, touch, balance, and bodily movements are studied using techniques from virtual reality, robotics, and brain imaging. Custom software solutions are developed in-house to provide psychology or neurology researchers with the appropriate tools.

Activities

The mission of the VR software developer will be to program, under the supervision of senior scientists, the tools and interfaces for cutting-edge virtual reality experimental work. The candidate will be involved in collaborative research projects of the laboratory and the Center for Neuroposthetics, where her/his role will be to convert the researchers’ needs into technological solutions and to do the technical support throughout the entirety of the project. In practical terms, the candidate will have to develop interactive software involving 3D graphics and signal processing, and to interface them with interactive hardware (sensors and displays).

Candidate profile

Diploma: Bachelor in Computer Science (programming, computer graphics, virtual reality)

Competences: Software development (C++, Python) for real time interactive systems and 3D computer graphics (OpenGL), integration with VR equipment (sensors and displays), and team work.

Language: English (both written and spoken), French is a bonus.

Position details

Dates: Position opens in January 2013 for a long term duration, starting on the basis of 1-year renewable contracts.

Location: LNCO / BMI / SV / EPFL, Switzerland, 1015 Lausanne. [http://lnco.epfl.ch](http://lnco.epfl.ch)

Applications are to be sent by email to Prof. O. Blanke ([olaf.blanke@epfl.ch](mailto:olaf.blanke@epfl.ch)) and Dr. Bruno Herbelin, ([bruno.herbelin@epfl.ch](mailto:bruno.herbelin@epfl.ch)) including a CV, a letter of motivation and a letter of recommendation.