Software Engineer

Description

Subject of a collaboration between the Institut Pasteur and Institut Curie, the DIVA project aids scientific users in the interpretation of their data using virtual reality (VR) and augmented reality (AR) environments. We are seeking a motivated software engineer to contribute to our development goals in this fixed contract paid until the end of December 2018.

The proposed role will focus on developing powerful new algorithms for data representation and to optimize existing ones. The DIVA platform is focused on integrating large amounts of diverse scientific and biomedical data on laptops and mobile devices. Efficient coding, sophisticated memory management and optimized algorithm complexity will be at the core of this project. A background working in scientific data is useful but not necessary for this role.

A key component of this role will be the design of highly intuitive user environments in VR and AR for users to interact with their data. In this regard, game development experience may be useful. Accordingly, the successful candidate will both develop software interfaces and conduct user-testing experiences.

The candidate will have access to the latest state-of-the-art VR and AR hardware during the course of this project. As such, we are seeking a candidate who has a firm grasp of computer graphics and rendering using modern GPUs and shader languages.

The successful candidate will join the *Decision and Bayesian Computation Lab* of the Institut Pasteur headed by Jean-Baptiste Masson and the *Light-Based Observation and Control of Cellular Organization Lab* of the Institut Curie headed by Maxime Dahan. He or she will work directly with Mohamed El Beheiry, the lead developer of the project and designer of the DIVA Platform. Beyond programming, the successful candidate should be willing to work in a highly interdisciplinary scientific environment and to interact with doctors in order to create the next generation of biomedical data visualization.

Past December 2018, the objective will be to begin a startup based on the technology developed by the DIVA project team. It is expected that the successful candidate will play an important role in this regard.

Requirements
Experience in C, C++ or C#
Unity
Computer Graphics (e.g. OpenGL, GLSL, etc.)
Interface Design
Virtual Reality

"Nice To Have" Experience
Image Processing
Parallel Computing (e.g. OpenCL, CUDA)
Game Development
Numerical Optimization
Machine Learning

Duration
This position will last until December 2018.

Locations
Institut Pasteur, 25/28 rue du Docteur Roux, 75015 Paris
Institut Curie, 11 rue Pierre et Marie Curie, 75005 Paris

Contact
If interested, please submit a cover letter and CV (French or English) to both maxime.dahan@curie.fr and jbmasson@pasteur.fr.