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Paris, Lundi 2 mai 2011,

Job Description – Modular Instrument Project

Title: Java Software Developer
Salary Scale: Common rate, to be fixed between us, depending on your experience and the particular help you can give me personally (But not less than 500€ per week for 40h for example, as a basic rate)
Duration: between three weeks and 2 months (maybe more) (read bellow)
Start Date: As soon as possible
Job time: Full time or 3/4 time, if possible
Location: Paris, Rue des Fossés St Jacques (5ème, RER Luxembourg)

Job Summary:
I'm looking for a Java developer, to work with us, a team of two developers, on a complex modular audio instrument project, with lots of controllers, events recording, automation and complex sound synthesis.

Key Skills that i'm looking for:
- Really excellent programming skills in Java, with good experience in serialization.
- Experience in multimedia/streaming/realtime sound/or game programming.

Other Welcome Skills:
- Good at building algorithmic codes, and in all kind of math.
- If you are well experienced in openGL, this is even better.

Eventually: Two Developers: I'm wondering eventually to employ two Java developers at the same time.

Detailed Job & Project Description:

You will help us to code (and find the best way to code) my project in Java & MaxMSP that we started 20 days ago. MaxMSP is a real time graphical programming environment made for real-time sound and image research applications. (-> http://cycling74.com/products/maxmspjitter/) While the UI and the Sound synthesis is made in MaxMSP, the main program structure and and all the algorithmic part - which means 90% of the program - is made in various java objects/modules that are integrated into the MaxMSP environment. You don't need to know MaxMSP to work with us. We are two good MaxMSP developers, but our not-so-long experience in java need the help of a very good java developer for this ambitious project.

The project is based on many years of personal musical theory research and instruments experimentations using Max. We are structuring the project in the clearest modular way possible. This is structured with Modules of three basic types:
(1.) Controllers: Many interchangeable controllers: Wacom-screen (see my blog*), iPhone, iPad, magic Trackpad, etc.
(2.) "instrument interfaces": The heart of the instrument itself: Different types of experiments of screen-keyboards (sometimes moving in real-time) dealing with just intonation.
(3.) Sound synthesis: Different interchangeable sound experiments to be used by one "instrument interface".

An "instrument" = A combination of different modules of the three types (containing various java-max objects corresponding to the modules, theses java objects sharing some static data***) would be saved as a preset. Java is used to manage LOTS of data: Each of these 3 basic type of Modules will also come with lots of presets possibilities**, real-time events recording, automation (of many UI parameters in Max and gesture data), and file saving. We will try to keep a really good object-oriented structure inside Java for the whole project. Apart from helping us building this main structural part, you might also work on algorithmic routines that we need for sound synthesis or others stuff.

The first weeks you will work mostly on the structural part, recording and presets management. After that, depending on the help that you are able to bring in my big project/ and eventually your motivation to learn a bit more of MaxMSP, you might work with us until end of june and maybe july.

The right candidate will have a creative and analytical personality with very high quality standards and an autonomous and results orientated working style, and will be proactive and innovative with the ability to work flexibly and quickly.

Blog I just started about the project, with few images and sounds :
* musique.alexandrehd.org

Max forum topics related to the project (thought you might only understand half of it) :
** cycling74.com/forums/topic.php?id=30182
cycling74.com/forums/topic.php?id=31145
*** cycling74.com/forums/topic.php?id=26312

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