

Strasbourg, le 17 juin 2013

**Laboratoire
des sciences de
l'ingénieur,
de l'informatique et
de l'imagerie (Icube)
UMR 7537**



to

Myriads team project

Subject : Recommendation of Marc Frîncu for the position of R&D engineer

Dear Madam/Sir,

I first met Marc Frîncu in 2007 when he was a student on an internship in my team at the INRIA research center of Nancy, France. I was at that time on the leave from my university on a researcher position. Although we have not directly worked together at that time, I know from my colleagues that he perfectly achieved his objectives during his internship, which led my colleagues to propose him to apply for a *CORDI* PhD funding at INRIA.

Marc preferred to return to Romania, where he went on with a PhD on a subject related to scheduling applications for Grids. This research theme is close to my owns, and I noticed during the last years the interesting results published by Marc in conferences in the domain.

During last summer, I learned that Marc was searching for a PostDoc position and I immediately proposed him to join us, to work on scheduling for clouds. This theme perfectly matched Marc's professional objectives. Marc joined us on last October, to participate in the national project SONGS¹ I am involved in. The objective is to enrich the existing Sim-Grid simulation toolkit with an API dedicated to the simulation of cloud-based systems. Simultaneously to the work on simulation, we carry on theoretical studies on the impact of different scheduling strategies on different types of workloads, that may correspond to certain activity types, or certain application models (e.g submission of independent jobs, or workflows, etc). These scheduling algorithms will be candidate solutions that could benefit from our cloud simulator development. Ideally, our simulation results will be compared to those produced in a real software framework, such as the one under development in our team.

Since he arrived, Marc has actively participated in all these tasks. He has shown an impressive body of general knowledge in the field of grid and cloud computing. I asked him to recap works from the past year where he thought we could work on, and he came up with a very complete survey after a very short time. We have since then submitted this survey to a scientific journal. Among other tasks, he is currently helping a PhD student by challenging him on potential weaknesses of the work. Marc also had a Master student under his supervision this semester. They have been working on scheduling strategies for workflows on IaaS clouds.

As a R&D engineer, I am pretty sure Marc will do an excellent job. He has excellent

1. <http://infra-songs.gforge.inria.fr/>

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skills in struggling in awkward technical environments and manage to quickly read and contribute to the existing Java code base we have to simulate IaaS clouds.

As a conclusion, I have been favourably impressed by the capabilities of Marc to quickly identify and summarize relevant research issues, and then to write it in a very fluent style. Most of his work is also supported by simulation, for which he has produced a fair amount of code. To summarize, he is both a very autonomous, and hard-working person. One regret i have is that Marc's stay (1 year) at or institution will probably not be long enough to achieve the numerous objective I would like him to undertake. The position he is applying for in the PaaSage project seems totally in the scope of his expertise. Therefore, I strongly recommend Marc for this position.

Stéphane GENAUD