CMU|Portugal Faculty Exchange Program

Summer 2011 – Final Report

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This report summarizes my activities in the context of the CMU|Portugal Faculty Exchange Program, under which I visited Carnegie Mellon University during the period from May 15 to August 10, 2011.

The main intention of my stay was to become certified to teach the **Master of Software Engineering** program at the University of Coimbra. Thus, the largest portion of my time was dedicated to coursework-related activities.

I became immediately involved in the **Personal Software Process** course, first as a student taking the assignments, and later as a teaching assistant grading other student's assignments. It was a very interesting experience in several ways. The course teaches a process rather than typical theory/practice regarding some topic. Moreover, students take it as a distance course, using distance learning tools (mostly Blackboard and Adobe Connect), and it was very fruitful to be involved in a course using these learning methods.

At the same time, I started to follow the work of three teams working on **Software Development Studio**. My mentor during this process was David Root, with whom I advised the work of the eleven students belonging to the three teams. The work performed by students in the Studio course is significantly different from the usual work done in regular courses. Teams work independently and need to be advised in a personal manner, so this requires distant pedagogical strategies. Furthermore, teams with different backgrounds (*e.g.*, MSE and MSIT students) have different needs. It was therefore extremely important to become involved in Studio as a mentor, especially as I was assigned mentoring duties once back at the University of Coimbra.

Additionally, I was given the opportunity to sit in on the elective courses taking place during my stay, although without the intention of becoming certified. This led me to following courses on **Estimating Software Development and Maintenance Projects**, **Open Source Software**, and **Globally Distributed Software Development**. Moreover, the staff welcomed me to participate in all meetings, including those with the purpose of renewing existing courses such as **Software Engineering Bootcamp**, which allowed me to gain a good understanding of the future developments planned for existing courses.

Another important facet of my visit to CMU was to follow the CMU|Portugal research projects from the "other side", that is, to participate in the research meetings with the CMU researchers involved in two projects: TRONE and Affidavit. I accepted the invitation to attend the weekly meetings with David

Garlan, Bradley Schmerl, and their students involved in Affidavit, which granted me a much better insight into what the CMU side of the project intends to research.

Furthermore, it was possible to meet Rajeev Ghandi and discuss the developments intended for the TRONE project, thereby improving the coordination among partners and making sure that there is a common track. Additionally, I was able to meet other CMU researchers outside the scope of the CMU|Portugal program, but who are conducting research in similar areas. The most fruitful discussions took place in Phil Koopman's research group along with his students.

In conclusion, it was a very interesting visit, which allowed me to get to know the people involved in the CMU|Portugal program, both in the teaching component and the research activities. Hopefully, there will be the opportunity for me to come back for another visit, perhaps with a shorter span and with a focused goal such as a task within one of the CMU|Portugal projects.