

## Faculty Exchange Program - Spring 2010 - Final Report

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This is short summary of the activities executed during my stay in CMU from Jan 25st to May 8st. My original work plan comprises three main activities related with teaching, doing research and advising. In the following I describe what was done regarding these activities.

**Teaching "Special Topics on Security: Intrusion Tolerance (18-639A & PP)".** The course was enlisted for both MSIT-IS from Lisbon and ECE Pittsburgh students. The course was taught by video conference from Pittsburgh (5 students) to Lisbon (9 students). It was a very interesting experience since I was completely responsible for this course and had to deal with all the process of setting up, teaching and managing a CMU course.

Research on PDL. I was involved in several activities related with my host, Greg Ganger, which is the director of PDL (Parallel Data Lab). In particular, I attended more than a dozen PDL meetings, some advanced storage classes and several meetings with Greg and some PDL students. Although it was difficult to have a concrete collaboration (i.e., a paper) due to the unavailability of free time for both of us to work on something new this semester (the fact that I was teaching 4 hours/week makes it difficult to start doing research in another field) and to the fact that system papers (the kind of work we are interested) require a lot of implementation and evaluation work. However, the experience was amazing because I was able to establish good contacts with one of the most important groups on storage systems in the world, and we defined several intersection points for future CMU|PT projects and PhD proposals. These contact points were established not only with Greg Ganger but also with others CMU/CyLab/PDL professors, such as Lujo Bauer.

**Advising Luis Brandão with Priya Narasimhan.** Priya and I co-advise Luis Brandão, a 1<sup>st</sup> year CMU | PT PhD student. I talked a lot with Luis and we defined a work plan for the next year and half that he will be on CMU. Regarding Priya, It was difficult to interact with her because she wasn't available most of the time. However, the few meetings we manage to get together were very productive and my interaction with Luis was great, so in the end, I only expect good things from this collaboration.

Finally, I attended many talks and gave two presentations in this period:

"Improving Critical Infrastructures connectivity during large-scale DoS attacks". CyLab Students Seminar (26/02/10)

"Scalable and Dependable Coordination for Trusted CLOUDS". PDL Meeting (23/04/10)

All in all, it was a great experience that I would recommend to any other Portuguese faculty that is considering participating on the program. In terms of future perspectives, I plan to go back to CMU this year and/or in the next for short visits to interact with Luis and Priya and to work on project and PhD thesis proposals with CMU faculty.