

CMU | Portugal

Faculty Exchange Program Report

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Host: Brad Myers

Department: Human-Computer Interaction Institute (School of Computer Science)

Period: Spring 2014, 13 January - 13 May

The main activities during my visiting period at CMU consisted in the following:

1. **Research on API usability.** The main focus of my research activity was on API (Application Programming Interface) usability, more concretely on the development of a novel technique to annotate APIs towards improved discoverability from an API usage perspective. I submitted a paper entitled "*Design Annotations to Improve API Discoverability*", co-authored with Brad Myers, to the 22nd ACM SIGSOFT International Symposium on the Foundations of Software Engineering. The submission is currently under the reviewing process. As a follow-up of this work, I have conducted a user study for evaluating the mechanisms proposed in the approach. Conducting the study required obtaining an online certification¹ for social/behavioral research and an approval from CMU's Institutional Review Board.
2. **Software Research seminar².** I have attended the weekly research seminar of the Institute for Software Research (School of Computer Science). I gave a presentation at the seminar related to the research topic described in (1) on February 24th.
3. **Interaction Techniques course³.** I have attended the course Interaction Techniques (Human-Computer Interaction Institute), offered by Brad Myers.

The research topic described in (1) differed from what initially proposed in the Work Plan of the program's application form. This happened due to a shared interest between me and Brad Myers of continuing the line of work on API usability that was carried out previously in his research group. We plan to further continue this research, namely by publishing the user study results and developing mechanisms to address other aspects of API usability.

¹ <https://www.citiprogram.org/index.cfm?pageID=88>

² <http://isri.cmu.edu/events/sssg.html>

³ <http://www.cs.cmu.edu/~bam/uicourse/2014inter/>