

Undergraduate Internship Program - CMU Portugal

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This short report provides a summary of the activities carried out during my visit at Carnegie Mellon University (CMU). My sponsors were Professor Siddhartha Srinivasa (CMU) and Professor Rodrigo Ventura (IST). I worked at the Robotics Institute, more specifically in the Personal Robotics Lab, for 3 months: from February 1st to April 29th, 2016.

During this period, I worked in collaboration with a PhD student, Jennifer King, on her manipulation algorithm. Given its advanced state, in the first month I carefully studied all the work she had previously done and started to get familiar with the coding part. After this, I was able to help implementing the option to shortcut trajectories generated by this object manipulation approach. Before leaving, I started implementing a method to generate a path that is more likely to be robust to uncertainty in the environment around the robotic arm.

One of the most valuable aspects of my visit to CMU was to get to know how different research groups work. Every Friday the lab has a meeting with almost all the members to discuss the work done and any problems that may have arise. Before this meeting, there is also a weekly reading-group, where everyone can practice talks they're going to give or paper they are working on, and a lab lunch.

Additionally to these lab-activities, there are many interesting talks and seminars happening on campus on multiple topics, which every student is free to attend or watch online. Another thing that amazed me was the sports-facilities on campus, which I could use for free with my student card.

As for the city of Pittsburgh, I really liked it. There are many events happening in the city and everyone is very nice. The city also has great views and the typical "american neighborhood" architecture really caught my eye. Pittsburgh is also known for its many interesting museums and exhibitions to visit.

In summary, this internship was a very enriching experience: not only did I have the opportunity to follow closely the work done by a great PhD student, but it also gave me the opportunity to get to know a very different culture and an amazing city. I thank CMU-Portugal for this opportunity and everyone involved, specially my Portuguese supervisor, Professor Rodrigo Ventura, for introducing me to this internship and promoting my application. A special thanks to Sara Brandão and Ana Lopes from CMU-Portugal for all their help and patience during the whole process.