

Report on research visit to EPFL, Switzerland

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From 1.9.2012 until 30.11.2012, I was a guest researcher in Computer Vision lab (CVLab) of École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, under the supervision of professor Pascal Fua. During this stay, an algorithm for point cloud matching was developed, implemented and tested. The method was applied to the registration of medical images such as retinal fundus and angiography images and the registration of electrical and light microscopy images. Both the algorithm and the application field are integrated on my doctoral thesis topic here in the Czech Technical University, which allowed me to gain a great insight and expertise in the field for my future work.

The work was done in collaboration with Raphael Sznitman, Ph.D. of CVLab, Eduard Serradell and Francesc Moreno-Noguer of the Institut de Robòtica i Informàtica Industrial (CSIC-UPC) of Barcelona, Spain, together with prof. Pascal Fua. The stay allowed therefore to strengthen the collaboration between our institution and both EPFL and CSIC-UPC.

The stay has resulted on a paper submitted to Information Processing in Medical Imaging (IPMI 2013). Plans have also been made to continue the collaboration, in order to further improve the method and expand the field of application, with a future submission in mind.

The visit also allowed me to attend several seminars and a workshop on fields such as Medical Imaging, Computer Vision, Machine Learning and Neuroscience. This provided me with further insight over the state-of-the-art work being done in a top-level University, as well as the possibility of making several connections for future collaborations.

My free time was spent exploring the beautiful Swiss landscapes and cities and socializing with other colleagues and students from CVLab and other departments. The visit also allowed me to further deepen my knowledge of French, which is the most spoken language in Lausanne.

