# Thibaut Durand

PhD student in Computer Vision, LIP6, UPMC-Sorbonne Universités

## PhD thesis (since October 2013)

Title Semantic attributes and deep learning for the representation of visual data: application in image classification

Laboratoire d'Informatique de Paris 6, UPMC-Sorbonne Universités, France (DGA Grant)

Advisors Matthieu CORD, Nicolas THOME

Areas of Computer Vision, Machine Learning, Deep Learning, Weakly-Supervised Leaning, Latent (Strucinterest tural) SVM, Image representation, Object/part detectors

#### Education

2012–2013 **M.Sc. in Image and Signal Processing degree**, *University of Cergy-Pontoise*, Cergy (95). France.

Master thesis: semantic pooling for image categorization using Multiple Kernel Learning

2010–2013 **Engineering degree**, *ENSEA*, Cergy (95), France, graduate school in electrical engineering, computer science and telecommunications.

Specialization: Multimedia Systems

## Experience

April-Sept Intern, Laboratoire d'Informatique de Paris 6, Paris, France.

2013 Semantic attributes for the representation of visual data: application in image classification

Summer 2012 **Summer Intern**, Laboratoire d'Informatique de Paris 6, Paris, France.

Image representations based on object detectors for object categorization

Summer 2011 **Summer Intern**, *ETIS*, Cergy (95), France.

Image representation for leaf recognition

#### Languages

French Native language

English Good knowledge

### Computer skills

Languages C/C++, Python, Java, Scala, Lua, OS Windows, Linux, Mac MATLAB

IDE IntelliJ Idea, PyCharm, Eclipse, Net- Software suites Microsoft Office, Open Office Beans

Library PyTorch, Torch7, MatconvNet, Hardware FPGA (VHDL), microprocessor OpenCV, VLFeat, LIBSVM, LIBLIN-EAR, jKernelMachines, Qt, MOSEK

## **Publications**

- [1] Thibaut Durand, Taylor Mordan, Nicolas Thome, and Matthieu Cord. WILDCAT: Weakly Supervised Learning of Deep ConvNets for Image Classification, Pointwise Localization and Segmentation. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.
- [2] Thibaut Durand, Nicolas Thome, and Matthieu Cord. WELDON: Weakly Supervised Learning of Deep Convolutional Neural Networks. In *IEEE Conference on Computer Vision* and Pattern Recognition (CVPR), 2016.
- [3] Thibaut Durand, Nicolas Thome, and Matthieu Cord. MANTRA: Minimum Maximum Latent Structural SVM for Image Classification and Ranking. In *IEEE International Conference on Computer Vision (ICCV)*, 2015.
- [4] Thibaut Durand, Nicolas Thome, Matthieu Cord, and David Picard. Incremental learning of latent structural sym for weakly supervised image classification. In *IEEE International Conference on Image Processing (ICIP)*, 2014.
- [5] Thibaut Durand, David Picard, Nicolas Thome, and Matthieu Cord. Semantic pooling for image categorization using multiple kernel learning. In *IEEE International Conference on Image Processing (ICIP)*, 2014.
- [6] Thibaut Durand, Nicolas Thome, Matthieu Cord, and Sandra Eliza Fontes de Avila. Image classification using object detectors. In 20th IEEE International Conference on Image Processing (ICIP), 2013.