Thibaut Durand

Researcher in Computer Vision and Machine Learning

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Postdoc in Computer Vision and Machine Learning (since 2018)

Advisor: Greg Mori

Areas of interest: *Deep Learning, Weakly-Supervised Leaning, Latent (Structural) SVM, Image Classification, Image representation, Object Localization, Semantic Segmentation, Dense Prediction*

Simon Fraser University, Vancouver, Canada

Ph.D. in Computer Vision and Machine Learning

Title: **Weakly Supervised Learning for Visual Recognition** (2013 - 2017)

Advisors: Matthieu Cord, Nicolas Thome

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

Committee: Francis Bach, Patrick Pérez, Alain Rakotomamonjy, Cordelia Schmid, Véronique Serfaty

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 2013 **Intern**, *Laboratoire d'Informatique de Paris 6*, Paris, France.
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

Computer skills

Languages: *C/C++, Python, Java, Scala, Lua, MATLAB*

OS: *Windows, Linux, Mac*

IDE: *IntelliJ Idea, PyCharm, NetBeans, Eclipse*

Software suites: *Microsoft Office, Open Office*

Library: *PyTorch, Torch7, MatconvNet, OpenCV, VLFeat, LIBSVM, LIBLINEAR, jKernelMachines, Qt, MOSEK*

Hardware: *FPGA (VHDL), microprocessor*

Publications

[1] Thibaut Durand, Nicolas Thome, and Matthieu Cord. Exploiting Negative Evidence for Deep Latent Structured Models. In *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2018.

[2] 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.

[3] Yue Zhu, Thibaut Durand, Eric Chenin, Marc Pignal, Patrick Gallinari, and Régine Vignes-Lebbe. Using a Deep Convolutional Neural Network for Extracting Morphological Traits from Herbarium Images. In *Proceedings of TDWG*, 2017.

[4] 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.

[5] 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.

[6] Thibaut Durand, Nicolas Thome, Matthieu Cord, and David Picard. Incremental learning of latent structural svm for weakly supervised image classification. In *IEEE International Conference on Image Processing (ICIP)*, 2014.

[7] 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.

[8] 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.

Languages

French	Native language
English	Good knowledge

Academic service

Journal Reviewer	○ IEEE Transactions on Pattern Analysis and Machine Intelligence, TPAMI 2017 ○ IEEE Transactions on Neural Networks and Learning Systems, TNNLS 2017
Conference Reviewer	○ IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2018