Melanie Ducoffe

ducoffe@i3s.unice.fr

(+33) 6.31.88.53.77

Language
- French (native)
- English(fluently, TOEIC: 930/990)
- Italian and Japanese: notions

Development
- Java (+++)
- Python (+++)
  - C++ (++)
- Matlab (++)
- C#, C, HTML, CSS
- . . .

Deep Learning
- Theano (+++)
- Blocks, Fuel (+++)
- Lasagne, Keras(+++)
- TensorFlow, Caffe, Torch (+)
- . . .

Ongoing Collaborations
- *Optimal Transport with Wassertein*
- *Plankton detection using deep learning on an embedded platform*
- *Laryngal EMG recognition using deep learning*
- *detecting adversarial examples*

Melanie Ducoffe
2nd year PHD student

About me I am a former French ENS Student who is passionate about artificial intelligence especially about deep learning. I spent 5 months under the supervision of Yoshua Bengio and I have started a Phd on deep learning in I3S, CNRS laboratory under the supervision of Frederic Precioso, Sophia Antipolis, France. My main focuses are about scaling **active learning** and **multimodality learning** for deep neural networks.

Experience
September 2015 - Today
Phd: Deep learning in the light of active learning & multimedia data classification
supervisor: Frederic Precioso
location: I3S laboratory, Sophia Antipolis, France
September 2015 - Today
Teacher assistant: Java programming, Computer Vision, Signal processing
location: Engineer School, Polytech Nice, Sophia Antipolis, France
December 2015, 2016: NIPS attendee
August 2015, 2016: CIFAR Summer school attendee(poster presentation)
February 2015 - June 2015
internship :
- Semi supervised learning using bijectif deep generative models
- Distributed training using batchwise dropout
supervisor: Yoshua Bengio
location: University of Montreal, Quebec, Canada
September 2014 - February 2015
internship: Query by Committtee for deep learning
supervisor: Frederic Precioso
location: I3S laboratory, Sophia Antipolis, France
February 2014 - June 2014
internship: 3D rotation invariant matching pursuit for gesture recognition
supervisor: Remi Gribonval, Anatole Lecuyer
location: INRIA, Rennes, France

Education
2013 - 2015
Research Master in Computer Science(option: Machine learning) at ENS Rennes, France

2011 - 2014
Computer science engineer degree(option: Machine Learning) at Ecole Polytech, Nice Sophia, France

2009 - 2011
Preparatory classes(Maths, Physics: *MPSI, MP**) at Lycee Massena, Nice, France

Publications

- QBDC: Query by dropout committee for training deep supervised architecture*(ESANN 2017)*

- Spatial and Rotation Invariant 3D Gesture Recognition Based on Sparse Representation*(IEEE VR 2017)*

- Optimal Experimental Design for Deep Networks*(FILM, NIPS workshop 2017)*

- Bio-inspired unsupervised pre-training of convolutional neural networks for image classification*(NIPS workshop 2017)*

- *A* linguistic analysis of Deep Learning architectures :
  Machine Learning under the light of Phraseology expertise: use case of presidential speeches, De Gaulle- Hollande(*JADT 2016*)

- Theano: A Python framework for fast computation of mathematical expressions