Fabien Baradel

Ph.D. Candidate, INSA-Lyon
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Research Interests

Machine Learning, Deep Learning, Computer Vision

Education

INSA-Lyon   Lyon, France   October 2016 - Present
Ph.D., Computer Science
- Thesis: *"Deep Learning for Human Understanding: poses, gestures, activities"*
- Supervisors: Christian Wolf - Julien Mille

ENSAI   Rennes, France   September 2013 - June 2016
M.Sc, Statistics & Computer Science
- Suma Cum Laude (top of class) - High Honors
- "Diplôme d'ingénieur" from the National School of Statistics and Data Analysis

University of Warwick   Coventry, UK   January 2015 - June 2015
M.Sc, Statistics
- Erasmus Mundus semester exchange — First-class honors

University of Paris Dauphine   Paris, France   January 2015 - June 2015
B.Sc, Applied Economics
- Double agreement with ENSAI

University of Grenoble Alps   Grenoble, France   September 2010 - June 2013
B.Sc, Applied Mathematics
- Suma Cum Laude (top of class) - High Honors

Work Experience

Simon Fraser Univeristy   Vancouver, Canada   February 2018 - June 2018
Visiting researcher — Vision & Media Lab
- Subject: *"Counterfactual Reasoning in Videos"*
- Advisor: Greg Mori

University of Guelph   Guelph, Canada   Summer 2017
Visiting researcher — Machine Learning Research Group
- Subject: *"Trimmed Video Classification"*
- Participation in a CVPR'17 competition on the Kinetics dataset — Elaboration of a C++ operation for an efficient training pipeline on videos using h264 encoding.
- Advisor: Graham Taylor

LIRIS	Lyon, France	October 2016 - Present

Graduate Research Assistant — Imagine team
- Subject: *"Deep Learning for Human Understanding"*
- Research on computer vision and machine learning with a focus on human activity recognition and video understanding — Involved in robotic projects
- Advisor: Christian Wolf - Julien Mille

XRCE	Grenoble, France	March 2016 - September 2016

Research Intern — Machine Learning for Services
- *Xerox Research Centre Europe (now NAVER Labs Europe)*
- Subject: *"Unsupervised domain adaptation for image recognition"*
- One paper accepted at ICCVW'17 & one U.S. Patent accepted
- Advisors: Boris Chidlovskii - Gabriela Csurka

LICIT - IFSTTAR	Lyon, France	June 2015 - August 2015

Research Intern
- Subject: *"Machine Learning for road traffic forecasting"*
- Advisor: Romain Billot

Publications

1. Fabien Baradel, Natalia Neverova, Christian Wolf, Julien Mille, Greg Mori. "Object Level Visual Reasoning in Videos", submitted to *The IEEE European Conference on Computer Vision (ECCV).* 2018.

2. Fabien Baradel, Christian Wolf, Julien Mille. "Human Activity Recognition with Pose-driven Attention to RGB ", *The British Machine Vision Conference (BMVC).* 2018.

3. Fabien Baradel, Christian Wolf, Julien Mille, Graham W. Taylor. "Glimpse Clouds: Human Activity Recognition from Unstructured Feature Points", *The IEEE Computer Vision and Patter Recognition (CVPR).* 2018.

4. Fabien Baradel, Christian Wolf, Julien Mille. "Human Action Recognition: Pose-based Attention draws focus to Hands", *The IEEE International Conference on Computer Vision (ICCV), Workshop "Hands in Action".* 2017.

5. Gabriela Csurka, Fabien Baradel, Boris Chidlovskii, Stéphane Clinchant. "Discrepancy-based networks for unsupervised domain adaptation: a comparative study", *The IEEE International Conference on Computer Vision (ICCV), Workshop "Task-CV".* 2017.

6. Fabien Baradel, Christian Wolf, Julien Mille. "Pose-conditioned Spatio-Temporal Attention for Human Action Recognition", *arXiv pre-print arXiv:1703.10106.* 2017.

Teaching Experience

Univ. Lyon 1	Lyon, France	Fall 2017

Teaching Assistant
- *Regression modelling* - (M2 Data Science) - (TP - 12h)
- *Probability & Statistics* - (L2 Info & MathsEco) - (TP - 20h)

EPITA	Lyon, France	September 2017

Teaching Assistant
- *Mathematics* - (L1) - (CM+TD - 24h)

ENSAI	Rennes, France	January 2017

Seminar

– *Introduction to Deep Learning with Tensorflow* - (MSc Data Science) - (6h)

Awards and Honors

ANR/NSERC Ph.D. Fellowship - DeepVision project

Erasmus Mundus exchange program scholarship

Computer Skills

Python, Java, C, C++, SQL, PHP, R, SAS

PyTorch, Tensorflow, FFMPEG, LaTeX, Linux, Mac, HTML, CSS