

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

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
- Advisor: Christian Wolf - Julien Mille

Simon Fraser University 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

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 Pattern 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.

Patents

1. Fabien Baradel, Boris Chidlovskii, Gabriela Csurka. "Conditional adaptation network for image classification", *US Patent - 15450620*. 2017.

Teaching Experience**Sciences-U**

Lyon, France

2018-2019

Teacher

- *Introduction to Machine Learning* - (M2) - (CM+TD+TP - 30h)

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, L^AT_EX, Linux, Mac, HTML, CSS