

Alexandre Ramé

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Research Scientist in Deep Learning and Computer Vision. Specialized in domain adaptation, weak supervision, object detection, and semantic segmentation.

Professional Experience

- **HEURITECH** **Paris**
R&D Lead Research Scientist in Deep Learning *Jan 2016-now*
 - Main contributor of the **Computer Vision pipeline** that aims at understanding fashion trends through garments detection for images in wild from social media. Leader and manager of the R&D team.
 - **Tagging**. Semi supervised classification using *CNN* in *Keras* and *Tensorflow*, domain adaptation, low shot learning with triplets, image retrieval, GAN for dataset generation, color detection with attention, hierarchical classification, incremental learning ...
 - **Object Detection**. Own implementation of *Mask R-CNN* in *Tensorflow* with weak labels and partially annotated datasets. Weakly supervised semantic segmentation.
 - **NLP**. Language modeling, multilingual words and sentences embeddings, unsupervised named entity recognition, classification, clustering and language detection.
- **FLAMINEM** **Paris**
R&D Research Scientist in Data Science *Sep 2015-Dec 2015*

Analyzed web users journeys to predict long-term purchase decision. Big data challenges on *Spark*.
- **CLARAVISTA** **Paris**
Data Scientist *Apr 2014-Jul 2014*

Classification and clustering of internet behaviours. Proximal stochastic average gradient descent in *Scala* under the supervision of Francis Bach.

Education

- **COLUMBIA University** **New York, USA**
Master of Science in Operations Research (GPA: 3.9/4) *Sep 2014-May 2015*
 - Majors: Advanced Machine Learning, Artificial Intelligence, Deep Learning and Data Mining.
 - Minors: Statistics, Stochastic, Deterministic, Simulation, Sports Analytics, Algorithms and Programming.
- **Ecole POLYTECHNIQUE** **Palaiseau, France**
Diplôme d'Ingénieur (GPA: 3.7/4) *Sep 2011-May 2014*
 - Major: Applied Mathematics. Courses in Optimization, Statistics, Stochastic Finance, Queuing theory, Times Series Analysis, Complex Systems and Operations Research.
 - Minors: Computer Science, Economics, Physics, Entrepreneurship and Mathematics.
- **Lycée SAINTE-GENEVIEVE** **Versailles, France**
MP INFO.* *Sep 2009-Jul 2011*

Publications

Alexandre Rame, Emilien Garreau, Hedi Ben-Younes, and Charles Ollion. Omnia faster r-cnn: Detection in the wild through dataset merging and soft distillation. *arXiv preprint arXiv:1812.02611*, 2018.

Charles Corbiere, Hedi Ben-Younes, Alexandre Ramé, and Charles Ollion. Leveraging weakly annotated data for fashion image retrieval and label prediction. In *Computer Vision Workshop (ICCVW), 2017 IEEE International Conference on*, pages 2268–2274. IEEE, 2017.

Conferences & Teaching

- **Deep Learning Meetup #16** **Paris, France**
 - *Conference Speaker* *Jan 2019*
 - OMNIA Faster R-CNN.
- **Master Data Science l'X-Paris Sacalt** **Palaiseau, France**
 - *Teacher Assistant* *2017-2018*
 - Deep Learning course by Charles Ollion and Olivier Grisel.
- **Deep Learning Meetup #6** **Paris, France**
 - *Conference Speaker* *Feb 2017*
 - Correlational Neural Networks for multilingual embeddings.
- **Fondation D'Auteuil** **Sannois, France**
 - *Volunteer Teacher and Youth Leader* *Nov 2011-Mar 2012*

Skills & Interests

Skills.....

- **Programming Languages:**
 - Python **Deep Learning** tools (*TensorFlow, Keras, PyTorch, Theano, Caffe*) and **Machine Learning** (*xgboost, scikit-learn, Gensim*).
 - *Bash, Scala, R, Spark, Hadoop, SQL*.
- **Languages:** French(native), English (fluent).

Interests.....

- **Internet Community:** *Medium* writer, *Quora* active reader, *Arxiv* sanity user.
- **Sport:** Tennis, ski, squash, football.
- **Games:** Chess, Go, board games.

Projects

- **Summer School**
 - PRAIRIE AI of **INRIA** in *Grenoble* (Jul 2018).
 - Data Science Summer School of **Ecole POLYTECHNIQUE** in *Palaiseau* (Sep 2017).
 - Deep Learning Summer School of **MILA** in *Montréal* (Aug 2016).
- **Kaggle**
 - Otto group product classification challenge (116/3514).
 - American Epilepsy Society Seizure Prediction Challenge.
- **MOOC:** *Convolutional Neural Networks for Visual Recognition* by Andrej Karpathy, *Deep Learning and Machine Learning* by Andrew Ng, *Introduction to Data Science* by Bill Howe, *Probabilistic Graphical Models* by Daphne Keller and *Functional Programming Principles in Scala* by Martin Odersky.