Alexandre Ramé

49 rue Buzenval, 75020 Paris, France

 +336 32 17 09 14   •   ✉ alexandre.rame.cl@gmail.com
https://alexrame.github.io/

PhD student in deep learning and computer vision. Former research scientist. Specialized in classification, domain adaptation, weak supervision, object detection, and semantic segmentation.

Professional Experience

Sorbonne University   **Paris**
PhD student under the supervision of Professor Matthieu Cord.   *Mar 2020-now*

My thesis is about information theory for deep-ensembles applied to computer vision.

HEURITECH   **Paris**
R&D Research Scientist in Deep Learning   *Jan 2016-Nov 2019*

- Contributor of the **Computer Vision pipeline**: we aim at understanding fashion trends, with garments detection for images in wild from social media. Manager in the R&D team through open-set and open-domain computer vision challenges.
- **Classification**. Semi supervised using *CNNs* 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 Engineer 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*

Applied Mathematics. Courses in Optimization, Statistics, Stochastic Finance, Times Series Analysis, Complex Systems and Operations Research, Computer Science, Economics, Physics, Entrepreneurship and Mathematics.

Lycée SAINTE-GENEVIEVE   **Versailles, France**
MP* INFO.   *Sep 2009-Jul 2011*

Publications

Alexandre Rame and Matthieu Cord. Dice: Diversity in deep ensembles via conditional redundancy adversarial estimation. In *ICLR*, 2021.

Alexandre Rame, Remy Sun, and Matthieu Cord. Mixmo: Mixing multiple inputs for multiple outputs via deep subnetworks. *under submission*, 2021.

Alexandre Rame, Arthur Douillard, and Charles Ollion. Core: Color regression for multiple colors fashion garments. *ArXiv preprint*, 2020.

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*, 2018.

Charles Corbiere, Hedi Ben-Younes, Alexandre Rame, and Charles Ollion. Leveraging weakly annotated data for fashion image retrieval and label prediction. In *ICCVW*, 2017.

Conferences & Teaching

Sorbonne University   **Paris, France**
Teacher Assistant   *Fall 2020*
Deep Learning for Computer Vision

Deep Learning Meetup #16   **Paris, France**
Conference Speaker   *Jan 2019*
OMNIA Faster R-CNN.

Master Data Science l'X-Paris Saclay   **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

- **Meetups**: Organizer of the Deep Learning Meetup in Paris with Heuritech.
- **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**