

Alexandre Ramé

PHD STUDENT IN DEEP LEARNING FOR COMPUTER VISION.

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Education

PhD in Computer Science

Paris, France

SORBONNE UNIVERSITY (LIP6, MLIA) *Advisor: Pr. Matthieu Cord*

Mar 2020 - now

- In-going PhD thesis in Deep Learning for Computer Vision.
- Thesis title: "Diversity in deep networks and data to boost generalization for computer vision".
- Topics: ensembling, robustness, domain generalization, calibration, information theory.

Master of Science in Operations Research GPA: 3.9 / 4.0

New York, USA

COLUMBIA UNIVERSITY

Sep 2014 - May 2015

- Majors: Optimization and Machine Learning.
- Minors: Deep Learning, Statistics and Programming.

Diplôme d'Ingénieur Polytechnicien GPA: 3.7 / 4.0

Palaiseau, France

ECOLE POLYTECHNIQUE

Sep 2011 - May 2014

- Major: Applied Mathematics. Optimization, Statistics, Stochastic Finance, Times Series Analysis and Complex Systems.
- Minors: Computer Science, Economics, Physics, Entrepreneurship and Mathematics.

MPSI - MP* INFO

Versailles, France

LYCÉE SAINTE-GENEVIEVE

Sep 2009 - Jul 2011

Mathematics and Physics

Publications

DyTox: Transformers for Continual Learning with DYnamic TOken eXpansion

CVPR

ARTHUR DOUILLARD, ALEXANDRE RAMÉ, GUILLAUME COUAIRON, MATTHIEU CORD

2022

Fishr: Invariant Gradient Variances for Out-of-distribution Generalization

Under review

ALEXANDRE RAMÉ, CORENTIN DANCETTE, MATTHIEU CORD

2021

MixMo: Mixing Multiple Inputs for Multiple Outputs via Deep Subnetworks

ICCV

ALEXANDRE RAMÉ, REMY SUN, MATTHIEU CORD

2021

DICE: Diversity in Deep Ensembles via Conditional Redundancy Adversarial Estimation

ICLR

ALEXANDRE RAMÉ, MATTHIEU CORD

2021

CORE: Color Regression for Multiple Colors Fashion Garments

arXiv

ALEXANDRE RAMÉ, ARTHUR DOUILLARD, CHARLES OLLION

2019

OMNIA Faster R-CNN: Detection in the Wild through Dataset Merging and Soft Distillation

arXiv

ALEXANDRE RAMÉ, EMILIE GARREAU, HEDI BEN-YOUNES, CHARLES OLLION

2018

Leveraging Weakly Annotated Data for Fashion Image Retrieval and Label Prediction

ICCVW

CHARLES CORBIERE, HEDI BEN-YOUNES, ALEXANDRE RAMÉ, CHARLES OLLION

2017

Experience

Heuritech

Paris, France

RESEARCH SCIENTIST IN DEEP LEARNING Advisor: Dr. Charles Ollion

Jan 2016 - Nov 2019

- Leading the R&D team. Implementing and improving SotA models. Main contributor of the **Computer Vision** pipeline.
- **Classification**: semi supervision, domain adaptation, incremental learning and image retrieval.
- **Object Detection**, with partially annotated datasets.

Flaminem

Paris, France

RESEARCH ENGINEER

Sep 2015 - Dec 2015

- Analyzed web users journeys to predict long-term purchase decision.
- Big data challenges on *Spark*.

Claravista

Paris, France

INTERN DATA SCIENTIST Advisor: Dr. Francis Bach

Apr 2014 - Jul 2014

- Classification and clustering of internet behaviours.
- Proximal stochastic average gradient descent in *Scala*.

Teaching

Teacher Assistant

SORBONNE UNIVERSITÉ · Master level · DEEP LEARNING FOR COMPUTER VISION

Fall 2020 / Fall 2021

Teacher Assistant

DATA SCIENCE L'X-PARIS SACLAY · Master level · DEEP LEARNING

Fall 2017 / Fall 2018

Volunteer Teacher and Youth Leader

FONDATION D'AUTEUIL SANNOIS · MATHEMATICS

Nov 2011 - Mar 2012

Skills

- **Programming Languages:** Python · Shell · SQL · Scala · R · Latex
- **Data Science:** PyTorch · Tensorflow / Keras · Theano · Scikit-Learn · Numpy · Pandas
- **Tools & OS:** Linux · MacOS · Git · Jupyter · Vim · VSCode
- **Languages:** French (native) · English (fluent) · Spanish (Beginner)

Main Talks

FACEBOOK AI RESEARCH, FISHR FOR DOMAIN GENERALIZATION

Paris, France | Oct 2021

VALEO.AI, DICE FOR DIVERSITY IN DEEP ENSEMBLES

Paris, France | Mar 2021

PARIS DEEP LEARNING MEETUP #16, OMNIA FASTER R-CNN FOR SEMI-SUPERVISED OBJECT DETECTION

Paris, France | Jan 2019

PARIS DEEP LEARNING MEETUP #6, CORRELATIONAL NEURAL NETWORKS FOR MULTILINGUAL EMBEDDINGS

Paris, France | Feb 2017