ALEXANDRE ARAUJO

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Last update: July 15, 2020

EDUCATION

PSL Research University, Université Paris-Dauphine

Ph.D. Candidate in Computer Science (Expected graduation: Dec. 2020)

Subject: Building Compact and Secure Deep Neural Networks
Advisors: Pr. Jamal Atif, Pr. Yann Chevaleyre and Dr. Benjamin Negrevergne

SKEMA Business School

Master in Economics and Project Management

Université de Versailles

Mathematics - Physics

Paris, France
2017 – Present

Versaille, France
2013 – 2016

Publications

Fast & Accurate Method for Bounding the Singular Values of Convolutional Layers with Application to Lipschitz Regularization

Alexandre Araujo, Benjamin Negrevergne, Yann Chevaleyre and Jamal Atif preprint (2020)

Robust Neural Networks using Randomized Adversarial Training

Alexandre Araujo, Laurent Meunier, Rafael Pinot, and Benjamin Negrevergne preprint (2020)

Theoretical Evidence for Adversarial Robustness through Randomization

Rafael Pinot, Laurent Meunier, Alexandre Araujo, Hisashi Kashima, Florian Yger, Cedric Gouy-Pailler and Jamal Atif

Advances in Neural Information Processing Systems 32 (2019)

Understanding and Training Deep Diagonal Circulant Neural Networks

Alexandre Araujo, Benjamin Negrevergne, Yann Chevaleyre and Jamal Atif

24th European Conference on Artificial Intelligence (ECAI 2020) (2020)

Training Compact Deep Learning Models for Video Classification using Circulant Matrices

Alexandre Araujo, Benjamin Negrevergne, Yann Chevaleyre and Jamal Atif

The European Conference on Computer Vision (ECCV) Workshops (2018)

Teaching

Master Data Science – Ecole Polytechnique	Paris, France
Data Sience & Machine Learning Project	2016 - 2020
Master IASD – PSL Research University, Université Paris-Dauphine	Paris, France
Data Mining & Machine Learning	2019
Master ID – PSL Research University, Université Paris-Dauphine	Paris, France
Data Mining & Machine Learning	2019

Supervised Internships

Alexandre Verine: Master student, Summer 2019

A dive into Adversarial Attacks in the latent space with Invertible Networks

INDUSTRY EXPERIENCE

WavestoneParis, FranceData Scientist2015 – 2017AmazonLuxembourgData Engineer Interndec. 2014 – may 2015

INVITED TALKS

PFIA (French AI conference)
International Cybersecurity Forum
Limits of AI, BPI Conference
June 2020
June 2020
June 2020

SOFTWARE

Advertorch : Contributor of open-source library for adversarial robustness research with PyTorch **Circulant Youtube-8M:** Author of open-source library for training efficient & compact Deep Learning model for video classification

Adversarial Robustness Through Randomization: Author of open-source library for training randomized neural networks to be robust against adversarial attacks

TECHNICAL SKILLS

Programming Languages: Python, C++, SQL Deep Learning Frameworks: TensorFlow, PyTorch ML Libraries: XGBoost, LightGBM, Scikit-Learn

Data Science Framework: OpenCV, SciPy, NumPy, Pandas