

RISSE-MAROIX Olivier

Data Science Master's Degree Student

« Make Perceptron Great Again ! »



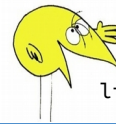
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WORK EXPERIENCE



CNES

Internship 6 months

02/2019 – 09/2019

Toulouse, France

National Center for Space Exploration

- Satellite Image Segmentation for SWOT space mission (2021) with FCN / Dillated Convolution / UNet like architectures



Center for Machine Perception

Research Internship 3 months

06/2018 – 08/2018

Prague, Czech Republic

CMP, Czech Technical University

- Compressing by 3 the size of a NIPS Neural Network without any score drop with separable convolutions and pruning in PyTorch



IRIT — SAMoVA group

Research Internship 3 months

06/2017 – 08/2017

Toulouse, France

Institut de Recherche en Informatique de Toulouse, Toulouse University

- Clustering faces (re-identification) by identity & emotions on videos with siamese and triplet networks in Keras, scikit-learn, OpenCV



THALES Avionics

Internship 3 months

06/2016 – 08/2016

Toulouse, France

- Developing an anomaly detection software for server monitoring with Python, SQL, Docker & Android

EDUCATION



Data Science Master's Degree

Sorbonne University - UPMC

Faculty of Science and Engineering

2017 – 2019

Jussieu, Paris, France

Courses & Project

- Machine Learning, Computer Vision, Natural Language Processing, Business Intelligence, Artificial Intelligence
- Research project on conversational systems for information retrieval (under supervision of Laure Soulier & Ludovic Denoyer)
- **2nd semester with honors**



University degree in Computer Science

Université Jean-François CHAMPOLLION

2014 – 2017

Albi, France

- Tutor for freshman and second year students

- **Validated with honors**

- Leading team projects with git and trello from 3 to 5 collaborators



MOOCs

Coursera

6+ months of online education

- Machine Learning : Classification — 7 weeks online University of Washington — coursera.org/verify/ANB2RMMMA5PG5
- Detección de objetos — 6 weeks Universitat Autònoma de Barcelona — coursera.org/verify/M2VA24EZXA
- Machine Learning — 11 weeks Stanford University — coursera.org/verify/P9AD628X7GFK

SKILLS

Concepts

Deep Learning

Machine Learning

Computer Vision

NLP

Models Compression

Reinforcement Learning

Data Science

Coding

PyTorch

Keras

OpenCV

Python

sklearn

Flask

Lucene

Gensim

Hadoop

Java

SOME PROJECTS

Natural Language Query traduction into Keywords (2018)

- Report (state of the art & results found - french) : <https://goo.gl/rqKoZT>
- Diverse methods used : Seq2Seq, CRF (innovative & space efficient), BM25
- Dataset constructed from (several Go size) : Wikipedia, SQuAD, QALD

Detection of Generic in Series using Perceptual Hash on video frames (2016 – 2017)

- Talk given at Paris Machine Learning Meetup : bit.ly/gnrictalk
- Code : bit.ly/phashgnric • Report : <https://goo.gl/Mg15hP>

Python Package for Automatic REST API Generation (2019)

- Package : bit.ly/bapiPIP • Code : bit.ly/bapiDOC
- Python3.7, no dependency, introspection, REST HTTP server, 3 lines

TF-IDF Pdf Search Engine (2016)

- Code : bit.ly/podofa • Demo : bit.ly/podofaDmo

Visualisation of Drone VS Suicide Blast Attack in Pakistan (2017)

- Demo : <https://youtu.be/-ie8qfa5QpA>
- Managing project & building a web platform for data visualisation using Firebase, Ajax, JQuery, Bootstrap & other javascript frameworks

Kaggle Competitions (2018)

- Plant Seedlings : TOP 17 % • Stateoil Iceberg : TOP 23 %

Apps (Android / Web)

- Apps published on Google Play (2015-16) : bit.ly/ormps
- Learn arabic alphabet in efficient way (2019) : bit.ly/aralang in React & Material UI, with hand drawing recognition for auto assessment

Re-Implemented Papers

- Distilling the Knowledge in a Neural Network (NIPS '14)
- U-Net: Convolutional Networks for Biomedical Image Segmentation (MICCAI '15)
- Explaining and Harnessing Adversarial Examples (ICLR '15)
- Highway Networks (ICML '15)
- Adversarial Discriminative Domain Adaptation (CVPR '17)
- Adversarial Reprogramming of Neural Networks (ICLR '19)
- <https://github.com/VieVie31/cool-papers-in-pytorch>

LANGUAGES

French : C2, bilingual

English : B2, fluent

INTERESTS

Machine Learning

Piano (since 6 years old)

Flute (since 1 year)

Pipe Organ (since 12 years old), interpretation & improvisation

Archery

Scouting

Archeology

Knowledge Sharing

