CYPRIEN RUFFINO

PhD in Machine Learning

53, Rue du Champ des Oiseaux, 76000 Rouen, France +33675900828 ruffino.cyprien@protonmail.com Normandy, France
cyprienruffino.github.io github.com/cyprienruffino linkedin.com/in/cyprien-ruffino orcid.org/0000-0002-4251-8938
scholar.google.com/citations?user=uiGzyb0AAAAJ

EDUCATION

PhD in Machine Learning

2017-2021 INSA de Rouen

Master's Degree in Software Engineering

2015-2017 Ranked 1st/43 Université d'Orléans

Bachelor's Degree in Computer Science

2012-2015 Ranked 2nd/64 Université d'Orléans

EMPLOYMENT

PhD thesis: Auxiliary tasks for the conditioning of Generative Adversarial Networks

Laboratoire d'Informatique, de Traitement de l'Information et du Signal (LITIS, INSA de Rouen)

October 2017–April 2021 Supervisors: Pr. G. Gasso, R. Hérault

- Conditioned data generation with Generative Adversarial Networks
- Multi-obective training of Generative Adversarial Networks, integration of domain-specific constraints
- Collaboration with SCK.CEN (Belgium): generative models for underground flow prediction applied to nuclear energy safety
- Image modality transfer and polarimetric imaging with generative models for road-scene object detection in adverse conditions

Research internship: Applied machine learning

Laboratoire d'Informatique, de Traitement de l'Information et du Signal (LITIS, Normandie University)

April – October 2017 Supervisor: Pr. T. Paquet

- Industrial partnership (ANR) with Hamelin SAS for Oxford Notebooks
- Deep learning for offline handwritten text recognition on Android devices with Convolutional LSTMs
- Development of a prototype recognition system with Keras and TensorFlow for Android

Internship: Cross-platform development

Laboratoire d'Informatique Fondamentale d'Orléans (University of Orléans)

April–June 2015 Supervisor: Pr. N. Ollinger

- Development of a cross-platform application for the visualisation of the SMART (Small Minimal Aperiodic Reversible Turing machine) machine for researchers, with OpenFL

FEATURED PUBLICATIONS

1. Pixel-wise Conditioned Generative Adversarial Networks for Image Synthesis and Completion, **Cyprien Ruffino**, Romain Hérault, Eric Laloy, Gilles Gasso *In Neurocomputing, 2020*
2. Gradient-based deterministic inversion of geophysical data with generative adversarial networks: Is it feasible? Eric Laloy, Niklas Linde, **Cyprien Ruffino**, Romain Hérault, Gilles Gasso, Diedrik Jacques *In Computers and Geosciences, 2019*

SKILLS

English European Level C2
French Native speaker

Python
Java
C/C++

TensorFlow
Keras

Generative models
Deep learning
Computer vision

Scikit-learn | SciPy | OpenCV | SQL | Matplotlib | Linux | Git | SLURM

SOME PROJECTS

CTCModel

Maintainer

Easy-to-use Connectionnist Temporal Classification in Keras

Albert Launcher

Contributor

A fast and flexible keyboard launcher for Linux, written in C++/Qt

TEACHINGS

Introduction to programming

2018-2020 INSA de Rouen

Introduction to algorithmics and programming in Pascal

Computational data analysis

2018-2020 INSA de Rouen

Statistics, data analysis and visualisation, regressions, dimensionality reduction and testing, with SciPy/Matplotlib

AND ALSO...

- PhD students' representative, voting member of the LITIS lab council, 2018–2020
- President of the IT student's association, 2015–2016
- Sysadmin of the INSA GPU servers
- Supervisor for 3 master's students' internships