# CYPRIEN RUFFINO

### **PhD Student in Machine Learning**

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♥ Normandy, France

\$\infty\$ scholar.google.com/citations?user=uiGzyb0AAAAJ

## **EDUCATION**

### Currenly enrolled in: PhD in Machine Learning

## 2017-Now

**♀** 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: Deep Generative Modeling for Structured Data Generation

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

Ctober 2017-Now

Supervisors: Pr. G. Gasso, R. Hérault

- Conditioned data generation with Generative Adversarial Networks
- Multi-obective training of Generative Adversarial Nets
- Integration of domain-specific constraints
- Applications to scientific data, most notably geostatistical data

## Research Internship: Machine Learning Research Intern Laboratoire d'Informatique, de Traitement de l'Information et du Signal (LITIS, Normandie University)

April 2017 - October 2017

Supervisor: Pr. T. Paquet

- 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
- Industrial partnership with Hamelin SAS for the Oxford brand

### Internship: Research assistant

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



Git SLURM Jupyter Linux Scikit-learn JetBrains IDEs SQL Android SDK Matplotlib

# SOME PROJECTS

#### **CTCModel**

Easy-to-use Connectionnist Temporal Classification in Keras

## PvChip8

A scriptable CHIP-8 emulator written in pure Python

# **TEACHINGS**

### Introduction to programming

**2018-2020** 

**♀** INSA de Rouen

Introduction to algorithmics and programming in Pascal

## Applied statistics for data science

**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 several of the LITIS GPU computation servers
- ArchLinux/Manjaro > Ubuntu
- Bass player, Esperanto speaker, member of the French Association of Lockpickers