Florent Bartoccioni

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Education

2017–Present **MSc in Computer Science**, *Ecole Normale Supérieure de Rennes*, France.

The approach followed by the school is to provide a "formation to research through research".

- PROJECT: Closely working with Dr.Bertrand Coüasnon on offline handwritten text recognition using Deep Learning. Getting familiar with state of the art methods based on HMM, MDLSTM, CNN and CTC. Will lead to a research paper.
- COURSES: Software Formal Analysis and Design, Experimental Bio-Informatics, Introduction to Supervised Learning, Games Theory & Applications, Distributed Systems, Parallel Programming, Clouds & Big Data

2017–Present **Deep Learning Nanodegree Foundation**, *Udacity*.

- Build and train your own Neural Network from scratch to predict the number of bikeshare users on a given day.
- Classification images from the CIFAR-10 dataset using a convolutional neural network.
- Generate a new TV script using a recurrent neural network.
- Generate realistic faces using a convolutional GAN.
- Use Reinforcement Learning algorithms like Q-Learning to train artificial agents to take optimal actions in an environment.

2016–2017 **BSc in Computer Science**, *University of Rennes 1*, France.

- COURSES: Formal Systems, Graph Theory, Network, Databases, Computer architecture, Programming, Unix operating system

2014–2016 **Classe Préparatoires**, *Centre International de Valbonne (CIV)*, France.

intensive two-year course to prepare for the competitive entrance into France's leading colleges. Majoring in Mathematics and Physics

- PROJECT: I've studied and realized an attitude system using sensor fusion with an IMU. This have resulted in a report written in LaTex.
- PROJECT: I took part in a competition among CIV students whose goal was to create an AI for the game bomberman and reached 2nd position.

Research experience

2017 **Research Intern in Activity Recognition (3 months)**, *INRIA STARS*, France.

The project aimed at building a video monitoring system for event recognition.

My contribution was split in two parts, the action detection and the event recognition:

- *For the former, I've created a system of Sliding Window in which the action was detected using Fisher Vectors.*
- *And for the latter It had mostly makes use of semantics, ontology and knowledge representation.*
- *Consequently, I've extended the existing team's framework, thus, allowing the modelization of new events which were otherwise not possible to identify with the baseline algorithm. The proposed approach was validated on the team's dataset.*

Research advisors: François Brémond, Michal Koperski and Carlos Crispim Junior.

Languages

French: Mother tongue

English: Read, Written, Spoken

Skills

- **Programming (Proficient):** Python, Ocaml
- **Programming (Comfortable/Familiar):** C++, C, Java, Scala
- **Markup/Templating:** HTML, CSS, LaTeX