# **Simon Carrignon**

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# Education

#### Université Denis Diderot Paris 7

Paris, France

Master Student in Logic, Philosophy, History and Sociology of Science

2011-2013

Classes in Hist., Philo. & Socio. of Sciences. Topic of interest: Evolutionary Theory and the epistemic link btw. Evolutionary Robotics & Evolutionary Biology.

## École Pratique des Hautes Études

Paris, France

Master Student in Natural & Artificial Cognition

2009-2011

2008-2009

2007-2009

Classes in Cognitive Sciences with courses of Neurosciences, Cognitive Psychology & Artificial Intelligence.

Université de Montréal

Montréal, Canada

Exchange Student One year to finish the bachelor with courses in Neurosciences, Artificial Intelligence & Bioinformatics.

# Université Claude Bernard Lyon 1

Lyon, France

License Student in Computer Science, sp. MIV

License with classes in Biology, Computer Science & Bioinformatics.

Université Joseph Fourrier

License Student in Computer Science & Biology.

Grenoble, France 2005-2007

Two years to learn the fundamentals in Computer Science & Biology.

# **Master Thesis**

# Supervisor: N. Bredèche

**LRI-INRIA-Paris Sud** 

Master "Natural & Artificial Cognition", École Pratiques des Hautes Études (Paris,Fr) Title: Self-organzitation in swarm of autonomous agents: evolution of specialized behaviors. mars - aug. 2011

Abstract: The goal was to investigate the emergence of speciation during environment-driven evolutionary adaptation in a population of autonomous robotic units. We address the case of sympatric speciation (occurrence of speciation without geographical isolation). We show that such speciation is possible in a robotic setup under very specific constraints with respect to mating opportunities and resources distribution.

## Supervisor: F. Bouchard

CIRST-UdeM (Canada)

Master "Logic Philosophy History & Sociology of Sciences", Univ. Paris 7 (Fr)

apr. - sept. 2013

Title: Evolutionary Robotics as a model to study Biology of Evolution.

Abstract: To justify the use of Evolutionary Robotics as a model to study evolution, we first explain the general principles and history of darwinian evolution and present current approaches. After, we underline the pertinance of the application of models (as in the semantic view), and simulations of those models, to study life. To finally introduce ER and to show that, as an embodied artificial life experiment, it combines numerous advantages that make it an ideal model to study evolution.

# **Experience**

Professionnal

#### **LUTIN-Université Paris 8**

Paris, France

Research engineer

jan. 2010-mar. 2012

1 week to 3 months short contracts during which I help researchers in data processing & statistical analysis and that allow me to develop or complete:

- o ACACIA Coop: a Netlogo program used to explore the worth of altruistic behaviors in swarm of autonomous agent (@git)
- o Pedestrian: a Netlogo program which allow user to test agent based pedestrian models in real map (@git).

# Université Paris Dauphine

Paris, France

Junior Lecturer (Chargé de cours)

sept. 2011-jan. 2012

Course for 2nd yr. university students. Total amount of teaching: 36hr.

Elementary notions of algorithmics and databases manipulation (w/ Foxpro).

Université Paris 8 Paris, France

Junior Lecturer (Chargé de cours)

sept. 2010-jan. 2012

Course for undergraduate students (License Students). Total amount of teaching: 144hr.

 $\mbox{\sc C2I}$  classes— gives the fundamentals to use the office tools and to understand computers.

Internship.....

## Supervisor: E. Zibetti (CHArt-Univ. P8)

Paris, France

Human Heuristic & Autonomous Robot

sept. 2009-jan. 2011

Development of a Java API to control a Khepera III robot via bluetooth linked with autonomous controller build from Human Heuristics found after the analysis of real experiments.

## Supervisor: A. Green (Dept. de Physio.-UdeM)

Montréal, Canada

Controler for physiological experiments

may 2009–aug. 2009

Graphical interface and communication's tools to control and synchronize an experimental setup designed to make physiological experiments on the monkey.

#### Supervisor: V. Daubin (LBBE-UCBL)

Lyon, France

Phylogenetic, Bacteries & LGT

may 2008-aug. 2008

C++ implementation of an algorithm used to adjust the species tree with the genetic tree including duplication and LGT.

# **Publications**

# Languages

French: Mother Tongue

English: Good Good experience in academic written & spoken English

Spanish: Intermediate

Daily practice

# Computer skills

OS: Linux (Ubuntu/Debian end & admin user), Windows XP, Seven, Vista.

**Publishing**: LaTeX/LuaTeX,Open Office & Microsoft Office Writers.

**Programming**: C/C++, R, Java, Bash, Python/Perl,Php.

Statistical analysis/Visualing: R (very good skills), Excel, Matlab.

#### **Interests**

I used to have a lot of associative activities, mostly activities which go around music, but also a bunch of works around sciences. I like reading, travel around the world and dive into the Linux CLI.