Guillaume Claret

Curriculum Vitae

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Born 23rd March 1989, Marseille (France)

Education

2012– **PhD of Computer Science**, *Université Paris VII and Inria*, with Yann Régis-Gianas.
Extension of the proof language Coq to a programming language with effects.

2008–2012 **Élève Normalien**, *Computer Science Department of École Normale Supérieure*, Paris, admitted 1st.

2011 **Parisian Master of Research in Computer Science**, *Université Paris-Diderot VII*.
Classes about abstract interpretation, theorem provers, concurrent systems, compilers, linear logic, type theory, software engineering.

2006–2008 **Classes préparatoires aux Grandes Écoles**, *Lycée Thiers*, Marseille.

2006 **Baccalauréat S (Scientific)**, *Lycée Bonaparte*, Toulon.

Experiences

Spring 2012 – Summer 2012 **Design of a compiler for probabilistic languages**, *Microsoft Research India, Bangalore*, with Sriram Rajamani and Aditya Nori.
.Net, F#, probabilistic semantics, bayesian networks.

Spring 2011 – Summer 2011 **Compiler and static analyzer of real-time ML language**, *Inria Paris*, Internship under the advisory of Roberto Amadio and Yann Régis-Gianas.
OCaml, formal verification of compilers and real-time programs.

Spring 2011 **French robotics contest with the ENS's team**, *La Ferté-Bernard*, 24th.
C++, AI.

2010 – 2011 **Teaching of Maple practical classes**, *Lycée Saint Louis, Paris*.

Spring 2010 – Summer 2010 **Optimistic Concurrency Using a Program Logic for History**, *Yale University*, Internship under the advisory of Zhong Shao.
Coq, formal verification of concurrent programs.

Summer 2009 **Design and proof of a pre-condition algorithm on C in Coq**, *INRIA Sophia-Antipolis Méditerranée*, Internship under the advisory of Anne Pacalet.
Coq, C formal verification, Frama-C.

Spring 2009 **Simulator of a robot moving without articulation**.
Physics engine, C++.
http://guillaume.claret.me/bunach/

Spring 2009 **Simulation of an olfactory system**.
Neuroscience, neural network, Python.

Spring 2009	**Member of Cloudster, a k-means algorithm implementation on Cloud computing**. Visual Studio, C#, .Net, Windows Azure. `http://cloudster.sourceforge.net/`
Since 2009	**Admin and development of TeeWorlds game servers**. Admin, C++, networking.
Winter 2008	**Compiler of a subset of OCaml**. OCaml, Menhir, MIPS assembly.
Winter 2008	**Electronic circuit simulator and design of a small microprocessor**. C, Ruby.
Winter 2008	**ACM's algorithmic contest**, *Nuremberg*, 5th.
2008	**Generator of walking creatures by genetic algorithms**. Physics engine, genetic algorithms, C. `http://guillaume.claret.me/projects/tipe/video.avi`

Skills

Programming languages

- C, C++
- Plateforme .Net (C#, F#)
- OCaml, Coq (proof language)
- Ruby, JavaScript
- x86 and MIPS assembly languages
- Web technologies (HTML, CSS)
- SQL

Software

- GNU/Linux (Red Hat based, Debian based), Windows
- Git, Mercurial and SVN version control systems
- NGINX / Lighttpd webserver
- Regular use of LaTeX, Beamer, Inkscape

Language skills

French	**native**
English	**written and spoken**
Spanish	**scholar**