

Guillaume Seguin

Curriculum Vitae

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Born 18th February 1989



Education

- 2008 – ... **Élève Normalien**, Computer Science Department of École Normale Supérieure, Paris.
- September 2009 **License (B.Sc.) of Computer Science**, Université Paris-Diderot VII, Paris.
- 2006 – 2008 **Classes préparatoires aux Grandes Écoles**, Lycée Louis Thuillier, Amiens.
- 2006 **Baccalauréat S (Scientific)**, Lycée Sainte Famille, Amiens.
With High Honors.

Experiences

- April 2006 – ... **Member of Compiz window manager team (and previously Beryl/Compiz-Fusion teams).**
Webmaster and sysadmin, handling the project web services (web sites, code repositories...)
Developer of various parts (multihead, dbus, some plugins) of the software.
Release manager.
- Summer 2010 **Work on using structure from motion to improve accuracy of a single image object full pose detection**, CMU Robotics Institute, Internship under the advisory of Martial Hébert.
- Summer 2009 **Development of a multi-threaded discrete-time event simulator for use with ns-3 network simulator**, INRIA Sophia-Antipolis Méditerranée, Internship under the advisory of Mathieu Lacage.
Evaluation of various multi-threading related problems (synchronization, concurrent reference counting...)
Technologies : C++, Pthread
- Sprint 2009 **Member of the development of Cloudster, a clustering framework over the cloud.**
Using Microsoft® Windows® Azure™ cloud computing framework.
Applications for image clustering using Gist image feature extraction algorithm.
Produced as a project for a *software engineering* course. Technologies : C#, Windows® Azure™
- Winter 2008 **Development of a simple compiler for a fragment of OCaml.**
From parsing the source code to producing MIPS assembly, including a typing subsystem.
Produced as a project for a *compiling* course.
Technologies : OCaml, OCamlLex, Menhir, MIPS assembly
- Winter 2008 **Development of a logic circuit simulator and design of a simple microprocessor.**
Also developed a logic circuit graphic builder, with advanced visual debugging and introspection capabilities.
The microprocessor was simulated on the logic circuit simulator, and provides a MIPS-like assembly. Included hardware multiplication.
Produced as a project for a *digital systems* course.
Technologies : OCaml, C, C++, Python, GTK+, Cairo
- 2007 – 2008 **Development of an inverted-pendulum motion based robot.**
The robot idea was based on the Segway, built using a LEGO NXT and gyros.
Robot control software was written using a realtime programming framework.
Technologies : LEGO NXT, C, Java, C++, Python, Matplotlib
- Summer 2007 **Development of a color filtering plugin for Compiz**, Google Summer of Code 2007.
The plugin aim is to improve computer accessibility for visually impaired persons.
A set of specific filters for a selection of impairments was also developed.
Technologies : C, OpenGL, Fragment Shaders, Python, Cairo
- 2007 **Development of PyAntNetwork, a network routing simulator based on ant systems algorithms.**
Technologies : Python, GTK+, Cairo

Teaching experiences

Fall 2010 – ... **Maple and Caml practical classes**, *Lycée Saint Louis*.

Fall 2010 **ACM-ICPC teams coach**.
Training of 2 teams for the ACM-ICPC south european regionals

Fall 2009 **ACM-ICPC teams coach**.
Training of 4 teams for the ACM-ICPC south european regionals

Skills

Programming languages

- C (advanced), C++ (advanced), C# (basic)
- Python (advanced), Bash (basic), Lua (basic)
- Matlab (advanced)
- Web technologies (PHP/JavaScript/(X)HTML, CSS)
- SQL

Softwares

- GNU/Linux (Debian-based, Fedora, Gentoo), FreeBSD, Microsoft® Windows®
- `git`, `hg`, `svn` version control systems
- Autotools/CMake build systems creation
- Regular use of LaTeX, Beamer, Matplotlib, Inkscape

Language skills

French **native**
English **written and spoken**
German **scolar**

Hobbies

Photography
Robotics