

Pablo "p4bl0" Rauzy

École normale supérieure
45 rue d'Ulm
75005 Paris - France
Birth: 1989-07-30 (22 years old)
Web: <http://pablo.rauzy.name/>
Email: r at uzy dot me
Phone: mobile +33.659899276



Academic Curriculum

- 2009 - 2012 Student in Computer Science at the École Normale Supérieure de la Rue d'Ulm (Paris, France).
- Currently doing the second year of the Parisian Master¹ of Research in Computer Science (fifth university year).
 - Licence (French third university year degree) with honors - September 2010.
- 2007 - 2009 "Mathematics and Computer Science" degree at Luminy's Faculty of Sciences, a part of the University of the Mediterranean (Marseilles, France).
- DEUG (French two years university degree) with the highest honors - June 2009.

Skills

Scientific Skills

- Mathematical foundation of programming: lambda-calculus, Turing machines, computability, logic, automata, formal languages.
- Data structures and algorithms, complexity analysis.
- Discrete mathematics: combinatory, graph theory.

Technical Skills

- Imperative and object oriented programming: C/C++, PHP.
- Functionnal programming: Scheme (Racket), OCaml.
- Logic and constraint programming: Prolog.
- Synchronous and dataflow programming: Lustre.
- Software engineering: Design Patterns, teamwork, version control systems (Git, Subversion), various libraries and frameworks.
- UNIX systems programming and administration: C, Bash, Perl.
- Web development: PHP (MVC frameworks), HTML, CSS, JavaScript (jQuery), databases (MySQL, SQLite), web servers (Apache, Lighttpd), XML (DOM, DTD, XSLT), Inkscape (vectorial drawing).
- Writing and presentation: LaTeX, Beamer.

Meta Skills

- Able to efficiently use technical documentation, manuals, tutorials, search engines and books.

Non-Programming Languages

- French as mother language.
- Fluent English (TOEIC score: 960 (in 2009)).

Scientific Interests

- Programming languages, concepts, and paradigms.
- Information security.
- Networks and distributed computing.
- Operating systems and embedded software.

Experiences

Research Internships

- May to August 2011 in the Computer System Architecture group at the University of Amsterdam. Redesign and development of the SAC programming language's C interface to fully take advantage of SaC implicit parallelization even when calling SAC code from an already parallelized C program.

- June and July 2010 in the Synchronous team at the Verimag lab (Grenoble, France).
Conception and development of a low-level system layer including a dynamic preemptive scheduler for critical real-time programs written in the synchronous Lustre programming language.

Web Development Internships

- Three weeks in April 2009 at Busineo (Paris, France) [startup].
Various web development tasks from installation of online payment system to implementation of modules like batch database entries treatment and a very tolerant CSV parser.
- July and August 2008 at Berard SA (Marseilles, France).
Development of a web store from scratch and training the person who continued the development (rezokaz.com).

Some Software Projects

- *Belokan*: lightweight and hackable MVC framework for PHP5 web application (used for real-world web development).
- *fugitive*: blog engine running on top of git using hooks to generate static html pages and thus having only git as dependency.
- *repaus*: a Racket resource oriented micro-framework to create RESTful API.
- *estolus*: a Racket #lang which translates code from Esterel to Lustre programming languages.
- *PASTIS*: Scheme toolkit which produces, from a given program (also in Scheme), a new one which behaves exactly the same as the original one but which also rewrite itself differently at each execution.
- *oximoron*: a Racket (Scheme) toolkit which produces, from a given program (also in Scheme), a new one equivalent to the original one but which can reverse-engineer itself in case of code obfuscation.
- *Racketris*: a Racket multiplayer peer-to-peer graphical tetris game.
- *mimo*: compiler for a subset of OCaml (focusing on modules and functors) that translate OCaml code to MIPS assembly. It is written in OCaml.
- *scifi*: circuit simulator written in C.
simpa: single-instruction 8-bit microprocessor implemented in scifi's netlist language.
asciifree: seven-segment displayer interfacing with the simpa microprocessor.
sasc: watch written in simpasm, the simpa microprocessor assembly language.
- *sqwarea*: in-browser massively multiplayer strategy game, taking place on an infinite board.
Developed using the .NET stack on the Windows Azure cloud platform, together with a team of 10 students using agile method such as a continuous integration server. Live at sqwarea.com.

Miscellaneous

- Member of the Free Software Foundation - since 2008.
- Elected representative of the computer science students at the Luminy university council (CEVU) - 2008 to 2009.
- Elected representative of the students at the ENS Computer Science Department council - 2009 to 2012.
- Member of the École normale supérieure's board of trustees as an elected representative of the scientific students - 2011/2012.

¹ a Master is a European two years degree starting after three university years (which correspond to a Licence degree), thus obtained after five university years, allowing one to start a PhD.