

Marc Poulhiès

Software Engineer & PhD in Computer Science

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SKILLS

- OS GNU/Linux (extensive knowledge)
- Languages Good knowledge of C, Python, Java and average level in C++. Excellent adaptation abilities.
- Misc. GNU tools (eg. gcc/gdb, bash), git/subversion, L^AT_EX, web (xhtml, css, javascript), networks, GeoSpatial (postgis, OpenLayers, GeoDjango), android.

LANGUAGES

- French:** native
- English:** fluent
- Spanish:** basic

WORK EXPERIENCE

- 2009-present **Lead Software Engineer, VERIMAG, Grenoble.**
Extended the MIND component model for dataflow systems. Developed compiler extensions for the cogeneration of an embedded binary and a formal model in BIP (modeling language developed at VERIMAG) for validation. Completely redeveloped the BIP language & compiler. Set up a bug tracking and a continuous integration systems.
∝ Operating systems, Embedded systems, Formal model, Compilation, Software components
- 2005-2009 **Phd Candidate, Orange Labs & VERIMAG, Grenoble.** *directors Joseph Sifakis & Jacques Pulou*
Extended the Think compiler (Orange Labs) for the faithful cogeneration of a OS kernel and its formal model (BIP). The embedded targets include ARM, AVR and MSP430 platforms.
∝ Operating systems, Embedded systems, Real time, Formal model, Compilation, Software components
- 2005 **Network Security Software Developer, CERN, Geneva.**
9 months Redeveloped the automated system for the large scale secure distribution of sensitive information (2000+ nodes) for the commissioning of the Large Hadron Colider (LHC) particle accelerator. The result, called SINDES, is still in use.
∝ Perl, SSL, X509, SSH, Apache, Quattor
- 2004 **Network Software Developer, Drakkar/LIG, Grenoble.**
4 months Developed an extensible and dynamic DHCP server for IPv6. Implemented the core RFC along with other extensions.
∝ Java, IPv6, DHCP
- 2004 **Software Developer & System Administrator, SPK, Lyon.**
2 months Developed an alarm system relaying video to handheld devices or computers over GPRS network. Set up intranet servers along with encoding/streaming server.
∝ Python, Video encoding and streaming (RTP/RTSP), GPRS, UMTS, VPN, System administration.
- 2003 **Operating System Security Software Developer, LASEC/EPFL, Lausanne.**
6 months Developed software for encrypting file systems at the OS level in the GNU OS (GNU Hurd) based on micro-kernel architecture.
∝ OpenSSL, Operating System, Cryptography, Micro-kernel
- 2002-2003 **Teaching assistant, EPFL, Lausanne.**
Teaching-assistant for C/C++ courses for environmental and materials science (labs and exams correction).

STUDIES

- March 2010 **Phd in Computer science, VERIMAG & Orange Labs, Grenoble.**
- 2005 **M.Sc. in Computer Science, EPFL (École Polytechnique Fédérale de Lausanne), Lausanne.**
- 2003-2004 **Exchange with ENSIMAG school, cluster network, Grenoble.**
- 2000-2005 **School of Computer and Communication Science, EPFL, Lausanne.**

EXTRA ACTIVITIES

- Sports Paragliding (competitor, qualified for tandems), hiking, snowboarding
- Software Involved in various free software projects (see my homepage or <http://github.com/dkm> for details)
 - tools for airspace: compiler, geospatial DB, django application, web & android clients