

Serge Guelton

R&D engineer in compilers

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🌐 [serge-sans-paille](#)

PhD

title *Building Source-to-Source Compilers for Heterogeneous Targets*
supervisors François Irigoien (Mines ParisTech/CRI) and Ronan Keryell (Télécom Bretagne/Silkan)
description Given the fast evolution of hardware, compilers can hardly keep up. This PhD proposes a solution based on a scriptable compiler infrastructure combined with high-level code transformations.

Education

2002–2006 **French** Grande École d'Ingénieur, \simeq **Master Degree**, *Télécom Bretagne*.
specialized in software engineering & networks

Experience

Vocational

since nov. **R&D Engineer**, *QuarksLab*, Telecommuting.
2013 R&D in compilation for security: building an LLVM-based obfuscator. *LLVM, C++, Obfuscation*
2012–2013 **Chief HPC Engineer**, *Quiet-Oceans*, Plouzané.
R&D in parallel computing: building an ocean noise. *C++, Python, OpenMP, MPI*
2011–2012 **R&D Engineer**, *HPC Project*, Telecommuting.
Extension and stabilization of the Par4All auto-parallelizing compiler. *C, OpenMP, CUDA, OpenCL*
2008 **R&D Engineer**, *INRIA/PARIS*, Rennes.
Automatic certification of distributed computations within the KAAPI middleware. *C++, Java, JNI*
2006–2007 **R&D Engineer**, *INRIA/MOAIS*, Grenoble.
Extensions and applications of the KAAPI middleware for distributed and parallel computing. *C++*

Personal

2012–∞ **Pythran Core Developer**, <http://pythonhosted.org/pythran>.
Development of an open-source optimizing compiler from Python to C++ for scientific computing
2008–∞ **Debian maintainer**.
hyantesite and polylib packages, plus a personal repository

Publications

Articles, talks and blog entries on compilation, scientific computing or obfuscation. Detailed list on <http://serge.liyun.free.fr/serge/publications.html>

Computer skills

Compilation	Obfuscation, Vectorization and Parallelization	Parallellism	Distributed/Shared memory, SIMD
Scientific Computing	Legacy codes optimization and parallelization	Daily Used Tools/Lang	C, C++, Python, git, GNU tools, TDD, valgrind

Languages

French	native	English	Cambridge Advanced Certificate
German	Goethe Institut Zertifikat Deutsch	Russian	rusty