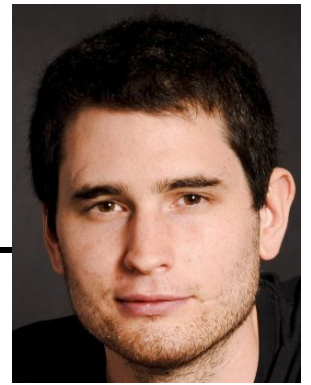


# Computer Engineer

Antoine Morvan

<https://sites.google.com/site/antoinemorvanpro/>



## PERSONAL DETAILS

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*Misc.* Driving license

## WORK EXPERIENCE

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- 2016** **Expert Engineer** – *Echoes-Labs* – *Rennes*
- Design and Implementation of Tools for Automated Software Modernization
  - Migration from proprietary Java framework to Spring MVC
  - Software code audit of web applications (AngularJS, Spring, Hibernate)
- 2013 – 2014** **Research Engineer** – *Université de Rennes 1* – *CAIRN Team*
- Technical integration for the ALMA European project
  - Compiling Scilab for heterogeneous multicore reconfigurable architectures
  - Maintainer of the team compiler, GeCoS (Generic Compiler Suite)
  - Developing, testing, documenting and integrating 500k+ lines of Eclipse/Java/C
- 2009 – 2013** **Research Engineer (PhD)** – *INRIA* – *CAIRN Team*
- Nano 2012 project S2S4HLS with STMicroelectronics
  - Source-to-source for High-Level Synthesis toolbox within Eclipse
  - Exhibit efficient code structure and memory layout in compute kernels
  - Improve applicability of nested loop pipelining (see publication)
  - Implementation of ompVerify (see publication) with Colorado State University
- 2009** **Research Engineer (internship)** – *INRIA* – *CAIRN Team*
- Design and implementation of a FSM generator for *scanning* loops represented as polyhedra.

## EDUCATION

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- 2009 – 2013** Ph.D in Computer Science – *ENS Cachan, antenne de Bretagne* – *Bruz*  
**2007 – 2009** Master's Degree in Computer Science – *IFSIC* – *Rennes*

## SCIENTIFIC PUBLICATIONS (SELECTED)

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**Polyhedral Bubble Insertion: A Method to Improve Nested Loop Pipelining for High-Level Synthesis.** Extension of the applicability of nested loop pipelining for high-level synthesis in the context of source-to-source automatic compilation, IEEE TCAD, 2013.

**ompVerify: Polyhedral analysis for the OpenMP Programmer.** Implementation of a tool for editing C/C++ programs annotated with OpenMP pragmas, providing instant feedbacks about the legality of annotations within Eclipse editor, IWOMP, 2011.

## SKILLS

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*Prog. Paradigms* Imperative, procedural, object oriented, functional, structural, logic, constraint, parallel (memory shared, transactional), query

*Prog. Languages* **Java**, C, C++, Scripts Bash et Shell, Latex, PHP/HTML/SQL, Javascript, Tom/Gom, Xtend, Xtext, cup/flex

*Framworks* Struts, Spring, AngularJS

*IDE & tools* **Eclipse**, **Git**, SVN, Make, Gradle, Maven, Jenkins, Nexus, Sonarqube, Redmine, Nexus, vi, Quartus, Catapult-C

*Servers* LAMP, SSH, DNS, DHCP, IPTABLE, Squid

*Modeling* EMF/Ecore, UML, Merise

*OS* UNIX / Linux, Windows

*Languages* **French** (mother tongue), **english** (used daily, spoken and written), german (until highschool, Goethe-Institut's degree).