

Christophe Schmitz



Date of birth: 30 December 1980
Nationality: French
Phone: +31 (0) 6 31 76 85 80
Location: Den Haag
Email: C.P.F.Schmitz@gmail.com
LinkedIn: <http://nl.linkedin.com/in/cpfschmitz/en>
Website: <http://nmr.chem.uu.nl/~christophe/>

PhD / I.T. Architect

Current Position

2009-2012: Grid manager / research scientist at Utrecht University. (i) System manager and architect for the WeNMR European Grid Computing project for large-scale calculations. Virtualisation to optimise computational capacity, cluster management in a Linux environment, development of ad-hoc solutions for unexpected system errors. (ii) Development and assessment of new methods to model protein interactions. Reference: Prof. Alexandre Bonvin: a.m.j.j.bonvin@uu.nl

Past Experience

- 2006-2009: Doctorate** at the University of Queensland, *Brisbane, Australia*, Design and development of new computational methods, algorithms, software to analyse NMR spectra. Reference: Dr. Thomas Huber: huber@rsc.anu.edu.au and Prof. Gottfried Otting: go@rsc.anu.edu.au
- 2009: Two month collaboration** at University of Washington, *Seattle*: intensive training in using the protein folding prediction software Rosetta, and creation of a new module.
- 2005: Six month internship** at I.N.R.I.A. (French National Institute for Research in Computer Science and Control, *Paris*): contribution to the design of a secure data base embedded in a smart card, design and performance simulation of new index methods.
- 2004: Four month internship** at the University of Queensland: design and implementation of new software for the assignment of paramagnetic NMR spectra.
- 2003: Four month internship** at S.I.C.S. (Swedish Institute of Computer Science, *Stockholm*): contribution to the design of a solution for an off-line digital payment system.

Education

- 2009: Doctorate** in computational biology.
- 2005: Master degree with high distinction** in Computer Science at U.V.S.Q. (University of Versailles Saint-Quentin en Yvelines, *Versailles*). **Ranked second out of 32.**
- 2005: Engineering degree** at I.S.T.Y. (Institute of Science and Technique of Yvelines, *Versailles*) in computer sciences.
- 2001: Classes Préparatoires:** Three year intensive course for competitive exams for French engineering schools, at the Lycée Thiers, *Marseille*. Mathematics, physics, chemistry and engineering sciences.
- 1998: Baccalaureate degree with distinction** (Lycée Thiers, *Marseille*). Specialty: Mathematics.

I.T. Competences

Foundation: Software engineering · algorithms · computer networks · high performance architecture · databases · distributed and parallel systems · internet foundations · simulation · compilation · exploitation systems · bioinformatics · marketing · software quality control · information system modeling (UML, Merise)

Programming languages: C · C++ · bash · Java · Python · SQL · PHP · Lex · Yacc · Prolog · Caml

Operating Systems: Linux · Mac · Windows

Languages

French: mother-tongue

English: fluent

German: basic

Main Projects

WeNMR: The WeNMR project provides grid computing capabilities to the NMR scientific community. In this project, I am fully managing our local computational resources in a Linux environment (cluster management, Xen virtualization, security, back up, performance, connection to the grid). I am also developing automatic testing tools, software deployment methods, write corporate knowledge sharing and succession planning, detect and report problems, define new requirements for the sustainability of the grid.

PCS-Rosetta: I designed, coded and tested a module (C++, 8000 lines of code) in the protein folding prediction software Rosetta (1.5 million lines of code).

Numbat: I am fully responsible of the architecture, design, coding, testing, and outreach of the scientific software package Numbat ©, used to analyse NMR spectra. This 22000 lines of C code software is open source, multi-platform, easy to use (GUI), and interfaces with standard visualization software.

Research Grants and Prizes

PhD scholarship: UQIRA/UQILAS (University of Queensland International Research Award / University of Queensland International Living Allowance Scholarship)

Conference scholarships: 1. BACS Postgraduate Conference Travel Awards
2. Grant for Euromar 2008 Conference

Travel scholarship: Graduate School Research Travel Grant 2009

Prize: 1. Outstanding presentation award at the East Coast Protein Meeting 2007
2. Third prize for best oral presentation at the SMMS symposium 2009
3. Student Travel Award at the East Coast Protein Meeting 2009
4. Third prize for best poster award at the NWO meeting 2010

Conferences and Workshops

EGI Technical Forum	2011 <i>Lyon</i> : Oral presentation of the WeNMR project
IWSG-Life	2011 <i>London</i> : Oral presentation of the WeNMR project
NWO meeting	2010 <i>Veldhoven</i> : Poster presentation of the Software PCS-Haddock
MolecularModeling	2009 <i>Gold Coast</i> : Oral presentation of the software PCS-Rosetta
SMMS symposium	2008 <i>Brisbane</i> : Oral presentation of the software Numbat
Euromar	2008 <i>St Petersburg</i> : Poster presentation of the software Numbat
SMMS symposium	2007 <i>Brisbane</i> : Poster presentation of the software Possum
East Coast Protein Meeting	2007 <i>Coffs Harbour</i> : Oral presentation of the software Possum
SMMS symposium	2006 <i>Brisbane</i> : Poster presentation of the software Echidna
Compbio	2006 <i>Brisbane</i> : Poster presentation of the software Echidna

Biomolecular Modeling winter school	2008 (<i>Stradbroke Island</i>)
Mathematical and Computational Biology winter school	2007 (<i>Brisbane</i>)
APAC Computational summer school	2006 (<i>Brisbane</i>)

Research Publications

One chapter in the book entitled “NMR of Biomolecules”
Seven publications in peer reviewed international journals.

Keywords

Grid Computing · Virtualization · Linux · Software developer · Software architect · System Administration · Cluster management · Open Source · GUI · GTK · Xen · LVM · RAID · Computational Biology