



# Mickaël Dardaillon

## Education

- 2014 **Doctorate degree**, *INSA Lyon*, Computer Science.  
Models of Computation, Compilation, Telecommunications and Embedded Systems.
- 2011 **Master degree**, *Université d'Orléans*, Electrical Engineering.  
Electronics, Signal Processing and Microsystems.
- 2011 **Engineer degree**, *Polytech'Orléans*, Electrical Engineering.  
Electronics, Signal and Image processing.

## Experience

- 2015– **Staff Software Engineer**, *National Instruments*, Austin, Texas.  
Models of Computation and High-Level Synthesis.
- 2014–2015 **Research Intern**, *Nokia Technologies*, Berkeley, California.  
Implementation of LTE-Advanced protocol on FPGA and manycores.
- 2011–2014 **PhD Student**, *CITI-Inria, INSA Lyon & CEA, LETI*, Lyon & Grenoble, France.  
Compilation for Parametric Dataflow targeting MPSoC.
- 2011 **Research Intern**, *CITI-Inria, INSA Lyon*, Lyon, France.  
Implementation of cryptographic primitives on wireless sensor node.
- 2010 **Engineer Intern**, *FH Electronics*, Orléans, France.  
Design of electronic fuel injection control board.

## Teaching

Undergraduate **Architecture, Algorithmic and Databases.** *Lab teaching and examination design*

## Skills

Hardware	<b>Design and implementation.</b>	<i>Experiments on FPGA technology</i>
Compilation	<b>Back-end for heterogeneous MPSoC.</b>	<i>Complete design and implementation</i>
Network	<b>CAN, SPI, 802.15.4, LTE-Advanced.</b>	<i>PHY layer development</i>
Modeling	<b>Dataflow model of computation.</b>	<i>Theory and implementation in a compiler</i>
Application	<b>Digital Signal Processing, Software Defined Radio, Cryptography.</b>	

## Publications

### Thesis manuscript

- 2014 Mickaël Dardaillon. “Compilation d’applications flot de données paramétriques pour MPSoC dédiés à la radio logicielle”. PhD thesis. Lyon, France: INSA Lyon, Nov. 2014

### Book chapter

- 2014 Mickaël Dardaillon, Kevin Marquet, Tanguy Risset, Jérôme Martin, and Henri-Pierre Charles. “Cognitive Radio Programming Survey”. In: *Handbook of Research on Software-Defined and Cognitive Radio Technologies for Dynamic Spectrum Management*. Ed. by Naima Kaabouch and Wen-Chen Hu. IGI Global, Oct. 2014. Chap. 25, pp. 653–679

### International conferences

- 2015 Mickaël Dardaillon, Chadi Jabbour, and Vason Srini. “Adaptive Digital Pre-distortion for Future Wireless Transmitters”. In: *IEEE International Conference on Electronics, Circuits, and Systems*. Cairo, Egypt, Dec. 2015
- 2014 Mickaël Dardaillon, Kevin Marquet, Tanguy Risset, Jérôme Martin, and Henri-Pierre Charles. “A Compilation Flow for Parametric Dataflow: Programming Model, Scheduling, and Application to Heterogeneous MPSoC”. in: *International Conference on Compilers, Architecture and Synthesis for Embedded Systems (CASES)*. New Delhi, India, Oct. 2014
- 2012 Mickaël Dardaillon, Cédric Lauradoux, and Tanguy Risset. “Hardware implementation of the GPS authentication”. In: *International Conference on Reconfigurable Computing and FPGAs (ReConFig)*. Cancun, Mexico, Dec. 2012, pp. 1–6
- Mickaël Dardaillon, Kevin Marquet, Tanguy Risset, and Antoine Scherrer. “Software defined radio architecture survey for cognitive testbeds”. In: *International Wireless Communications and Mobile Computing Conference (IWCMC)*. Limassol, Cyprus, Aug. 2012, pp. 189–194

### Research report

- 2013 Mickaël Dardaillon, Kevin Marquet, Jérôme Martin, Tanguy Risset, and Henri-Pierre Charles. *Cognitive Radio Programming: Existing Solutions and Open Issues*. Tech. rep. 8358. Inria, Sept. 2013

### National conference and seminar

- 2015 Mickaël Dardaillon. “Compilation of Parametric Dataflow Applications for Software-Defined-Radio-Dedicated MPSoCs”. In: *Design of Robotics and Embedded systems, Analysis, and Modeling Seminar (DREAMS)*. U.C. Berkeley, California, Feb. 2015
- 2014 Mickaël Dardaillon, Kevin Marquet, Tanguy Risset, Jérôme Martin, and Henri-Pierre Charles. “Contrôle d’application flot de données pour les systèmes sur puces : étude de cas sur la plateforme Magali”. In: *Conférence en Parallélisme, Architecture et Système (CompAS)*. Neuchâtel, Switzerland, Apr. 2014