PhD in Real-Time Networks/ENSIMAG engineer

Thomas FERRANDIZ

28 years old, French
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Education

11/2007 - 02/03/2012
PhD in Computer Science at ISAE, Toulouse
Controlling network latencies in on-board SpaceWire networks
PhD thesis conducted in partnership with the CNES and Thales Alenia Space

2006-2007
Master Degree "Systems and Software", Univ. J. Fourier (Grenoble, France)

2004-2007
Engineer Degree in Computer Science at ENSIMAG

2002-2004
Preparation for competitive entrance to French Engineering School

2002
Scientific Baccalaureate

Work Experience

2008-2011
Teaching Assistant
• JAVA courses at ENSICA (1st year student) and INSA (4th year student)
• SpaceWire course at ENSICA (3rd year student)

2007 (6 months)
Internship at the Laboratoire d'Informatique de Grenoble (LIG)
Simulation of data duplication strategies for the Large Hadron Collider computing grid
<u>Achievements</u>:
• Design and implementation of a simulator in C based on the SimGrid framework
• Implementation of the data duplication strategies in Perl on Grid5000 to validate the simulations

2006 (3 months)
Internship at the Institut Laue-Langevin (Grenoble)
Test and integration of a workflow software based on J2EE

Languages

• French: native speaker
• English: Good level (TOEIC: 950/1000)
• German: basic level

Technical skills

Programming | Java, C, Ocaml, Perl

Systems | Unix, Linux, Windows, Mac OS X

Software | Eclipse, Matlab, Word, Excel, LateX

Other | SpaceWire, performance evaluation, simulations

Main steps of the PhD

• Bibliography of the worst-case analysis methods for wormhole networks
• Development of a turn-by-turn simulator of a SpaceWire network in Java
• Design and implementation of several delay computation methods
• Analysis of a reference network architecture provided by Thales Alenia Space