Corentin DUPONT

35 years old

Nationality: French

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Computer Science Researcher

PhD Student

Education

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| PhD in Computer Science | On-going (snd year) | University of Trento, Italy. Thesis on Energy Aware Software in Cloud Computing. |
| Engineer Diploma (Master’s degree) | 2003 | Institut Supérieur d’Electronique et du Numérique (ISEN - Toulon, formerly ISEM), France, Real Time Computing option |
| Languages | French English Italian | Native language  **Fluent** (647/700 at the TOEFL, 980/990 at the TOEIC**)**  Fluent (Living in Italy since 2010) |

techniCAL SKILLS AND COMPETENCES

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| Operating Systems | **Linux**, Windows, Solaris, HP-UX |
| Languages | **Haskell**, **C++**, Java, Ada, Scala |
| Programming techniques | **DSLs, Constraint Programming** |
| Development and Specification | **GHC**, Vim, Eclipse, Linux tools, Qt, Doors |
| Project Management | CMMi 3 level, MS Project & OWB |

Published papers

* C. Dupont, G. Giuliani, F. Hermenier, T. Schulze, A. Somov: “An Energy Aware Framework for Virtual Machine Placement in Cloud Federated Data Centres”, in *Proceedings of E-Energy 2012 Third International Conference on Future Energy Systems*, 9-11 Mai 2012, Madrid.
* A. Somov, C. Dupont, and R. Giaffreda: “Smart-City Mobility with Cognitive Internet of Things”, Future Network and Mobile Summit (FUNEMS), 1–10, 2013
* M.-Q. Dang, A. Somov, C. Dupont: “Energy Usage and Carbon Emission Optimization Mechanism for Federated Data Centres”, in *Proceedings of E2DC 2012 1st International Workshop on Energy-Efficient Data Centres*, 8 Mai 2012, Madrid.
* M.-Q. Dang, R. Basmadjian, H. De Meer, R. Lent, T. Mahmoodi, D. Sannelli, F. Mezza, C. Dupont: “Energy efficient resource allocation strategy for cloud data centres”, in *Proceedings of 26th Int. Symposium on Computer and Information Sciences*, 26-28 Sept. 2011, London.

More papers can be found on my website www.corentindupont.info.

RESEARCH EXPERIENCES

**Researcher at Create-Net** research centre since October 2010 (Trento, Italy). Consultant for “Société pour l’Informatique Industrielle” from 2003 to 2010 (Aix en Provence & Paris, France).

I created a full game in **Haskell**, including a **DSL and on-the-fly compilation**: [www.nomyx.net](http://www.nomyx.net)

This is the first complete implementation of a Nomic game on a computer.

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| 2010 - Present | Create-Net | FP7 EU project FIT4Green and DC4Cities |
|  |  | Leader of Work Package 4 (FIT4Green) and 5 (DC4Cities). Research and design the algorithms and policies for energy-aware optimization of data centre operations.   * WP management, * Algorithmic research, specification and design, * Implementation of FIT4Green prototype using **Constraint Programming,** * Paper writing and project proposal writing.   Constraint Programming, Java, Green SLAs. |
| 2011 - Present | Create-Net | FP7 EU project iCore |
|  |  | Research in the area of Internet of Things. Leader of the iCore platform.   * Research on **DSLs to address the diversity of real-world objects**, * Implementation of the iCore platform prototype, * Coordination of the implementation of the platform.   DSLs, Internet of Things. |

Engineering Experiences

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| 2003 - 2008 | DCNS /  EADS | Technical leader & Project Leader (simulation Field) |
|  |  | Projects for the Norway frigates SKJOLD and the Franco-Italian frigates HORIZON:   * **Technical leader and project leader (CMMi 3)**, with a team of 4 persons for the realization of theReal Time Simulator (DCNS) * Specification, Conception and development of 5 simulators (calculator in Ada and GUI in C++/Qt) : Fire Control Tracker, Decoy Launcher System, Torpedo Launch System, Air Transceiver, Principal Anti-Air Missile System. * Evolution of NeVis, a 3D demonstrator for urban warfare (EADS).   C++, Ada, Qt, Linux, CMMi tools, OWB, Doors, Vega Prime, Delta 3D |
| 2009 - 2010 | PSA | Automatic gearbox software development |
|  |  | Supplier’s management for the automatic gearbox AL4/AT8 for PSA Peugeot Citroën   * Specification writing. * Management of the supplier (evolutions, technical issues, project management).   MS-Project, project management tools, SQL. |

Hobbies

* Paragliding instructor (tandem).
* Theatre since 9 years (several performances in Italian).