

## CURRICULUM VITAE ET STUDIORUM

**Danilo Ardagna**

### contact

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### appointment

#### **POLITECNICO DI MILANO, MILAN, ITALY**

2006- Assistant Professor at the Department of Electronics and Information  
2004-2006 Post Doctorate at the Department of Electronics and Information. Grant by  
MIUR to support post-doctoral studies.  
2001-2004 Ph.D. Student. Grant by Politecnico di Milano to support Ph.D. studies.

### education

2001-2004 Politecnico di Milano, Ph.D. in Computer Engineering with the thesis "A cost-oriented methodology for the design of information technology architectures," advisor Prof. C. Francalanci.  
2000-1992 Politecnico di Milano, Master in Computer Engineering (100/100 magna cum laude), with the thesis "ISIDE: a software tool for the cost-oriented design of Information Systems," advisor Prof. G. Bracchi.

### awards

#### **AMAZON WEB SERVICES**

AWS in Education research grant December 2010. Joint work with Elisabetta Di Nitto, DEEP-SE Cloud initiative.

#### **IBM**

IBM Faculty Award 2010. The PARVIS project has been founded by IBM to develop self-managing techniques for virtualized systems.

#### **POLITECNICO DI MILANO**

Fondi 5 per mille 2009. GAME-IT is one of the 8 projects selected out of 77 proposals by Politecnico di Milano to support junior researchers. The project aims at the development of green policies for virtualized data centers.

**research**

**interests**

**GREEN AND CLOUD COMPUTING**

- Service Provisioning: Definition of capacity allocation and load redirect policies with Quality of Service Constraints in Infrastructure as a Service Systems.
- Energy Aware Resource Allocation: Development of autonomic resource allocation techniques for the resource management in virtualized Data Centers.

**SERVICE ORIENTED ARCHITECTURES**

- Model-driven-development of SOAs: Model driven development of service based systems with performance and dependability guarantees.
- Web Service Composition: Definition and analysis of service selection policies in composed Flexible Processes with Quality of Service constraints.

**AUTONOMIC COMPUTING**

- Self Management Techniques: Design of network controllers for Autonomic Computing Infrastructures. Implementation of resource allocation policies for the optimization of Service Providers' profits associated with multiple class of Service Level Agreement.

**DESIGN OF IT ARCHITECTURES**

- Cost comparison of IT architectures: Empirical analysis of the technical and management costs of different IT architectures. Implementation of a design tool to support minimum-cost IT architectural design (including joint hardware and network communication costs).

**International scientific**

**collaboration**

**VISITING RESEARCHER**

2007

Two week visit at IBM T.J. Watson Research Centre. Participating in a research project on the self-optimization of Autonomic Computing within the Infrastructures Performance Analysis and System Optimization Group.

**VISITING RESEARCHER**

2005

One week visit at Computer Science Department at the Federal University of Minas Gerais, Brazil. Participating in a research project on the management of services and SLA in the Service Oriented Architecture, within the Performance Analysis and Modelling group led by Prof. Virgilio Almeida.

**INTERNSHIP AT IBM T.J. WATSON RESEARCH CENTER**

2003

Six month internship at IBM T. J. Watson Research Center, Performance Analysis and System Optimization Group. Participated in a research project on maximization of SLA revenues in Web Systems. Grant by IBM Research to support studies.

**participation in**

**research projects**

**EUROPEAN RESEARCH PROJECT**

2008-

Currently participating in SMScom IDEAS-ERC research project at Politecnico di Milano on design of situational application with run-time performance guarantees.

2008-

Currently participating in Q-ImPrESS FET/STREP research project at Politecnico di Milano on the model-driven-development of SOA systems with QoS guarantees.

2008-

Currently participating in s-Cube, the European Network of Excellence in Software Services and Systems.

2005-2008 Participation in WS-Diamond FET/STREP research project at Politecnico di Milano on the design of repair actions in self-healing web services systems.

#### **ITALIAN NATIONAL RESEARCH PROJECT**

2005-2008 Participation in DISCORSO FAR research project at Politecnico di Milano on the design of optimization and Web services composition algorithms to support Small and Medium Enterprises and industrial districts.

2003-2005 Participation in MAIS FIRB research project at Politecnico di Milano on analysis of multi-channel adaptive Information Systems.

#### **IBM ITALY RESEARCH PROJECT**

2006 Development of a software tool for the capacity planning of autonomic virtualized server farms.

**service** **INTERNATIONAL CONFERENCE TECHNICAL PROGRAM COMMITTEE MEMBER**  
**activities**

- IEEE CLOUD-II 2011, 2010, 2009
- IEEE ICWS 2011, 2010, 2009
- QoSA 2011, 2010, 2009
- MobiWIS 2011
- CGC 2011
- SEASS 2011
- Intensive 2009
- IEEE/INFORMS SOLI 2009
- IESA 2007, 2006

#### **INTERNATIONAL WORKSHOPS CO-ORGANIZER AND CO-CHAIR**

- First International Workshop on Run-time mOdelS for Self-managing Systems and Applications (ROSSA) 2009, at Valuetools 2009.
- First International workshop on Quality of Self-healing Web Services (QSWs) 2008, at BPM 2008.

#### **INTERNATIONAL JOURNALS REVIEWING SERVICES**

- IEEE Transactions on Software Engineering
- IEEE Transactions on Services Computing
- ACM Transactions on the Web
- IEEE Internet Computing
- IEEE Transactions on System Men and Cybernetics, Part C
- Journal of Systems and Software, Elsevier
- Journal of Parallel and Distributed Computing, Elsevier
- Computers in Industry, Elsevier
- Information and Software Technology, Elsevier
- Journal of Cooperative Information Systems
- Journal of Information Technology, Kluwer

**professional**

**experience**

**MAJOR EUROPEAN BANK, MILAN**

2005 Participated in a six-month project on the performance and scalability analysis of a Web system for the provisioning of financial services.

**PUBLIC ADMINISTRATION, MILAN**

2003 Participated in six month project on cost-benefit analysis of e-government infrastructure.

**MAJOR EUROPEAN BANK, MILAN**

2001 Participated in one-year project on cost-benefit analysis of multi-channel financial system.

**teaching**

**experience**

2001-2011

- Third year undergraduate course on “Web based Information Systems” (Politecnico di Milano)
- Second year undergraduate course on “Information Systems Platforms” (Politecnico di Milano).
- First year undergraduate course on “Principles of Computer Systems” (Politecnico di Milano).
- Graduate seminars on Information System platforms and security (Politecnico di Milano).

**patents**

D. Ardagna, E. Conforti, C. Francalanci , M. Gatti, S. Lucchini, S. Morsello, M. Trubian. Method, system and computer program for configuring server farms at minimum cost. Politecnico di Milano - IBM. *Patent number US7886036*, USA Patent Office. *Patent pending EP06123004*, European Patent Office.