

Europass Curriculum Vitae



Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Nationality(-ies)

Date of birth

Gender

Vitali, Monica

DEIB, Politecnico di Milano, via Giuseppe Ponzio 34/5, 20133 Milano (MI), Italy

+39 0223993424

monica.vitali@polimi.it

Italy

April 16, 1984

female

Desired employment

Occupational field

Research in Adaptive Systems, Service Oriented Architecture, Green IT, Artificial Intelligence, Evolutionary Algorithms, Self-Organizing Systems, Agent Oriented Architectures, Adaptive Ambient Assisted Living

Education and training

Dates

Title of qualification awarded

Name and type of organization
providing education and training

Principal subjects/occupational skills
covered

From September 2012 to February 2013

Visiting Student at the Computer Science and Artificial Intelligence Laboratory at MIT
Massachusetts Institute of Technology

Machine Learning and Genetic Algorithms applied to the Energy Consumption Optimization in Data Centers

Dates

Title of qualification awarded

Thesis Title

Name and type of organization
providing education and training

Principal subjects/occupational skills
covered

From January 2011 to December 2013

Ph.D. in Information Technology

“Measuring and Improving Energy Efficiency of a Data Center in a Self-Adaptive Context”

Politecnico di Milano

Adaptive Systems, Service Oriented Architecture, Green IT, Energy Efficiency

Dates

Title of qualification awarded

Thesis Title

From October 2006 to April 2009

Master of Science in Computer Engineering for Intelligent Systems (First-Class Honours)

“Study of an Agent Model based on the genetic metaphor”

Name and type of organization providing education and training	Università degli studi di Palermo
Principal subjects/occupational skills covered	Artificial Intelligence, Robotics, Digital Image Processing, Cryptography and Network Security, Complexity Theory, Quantum Computer
Dates	From September 2003 to October 2006
Title of qualification awarded	Bachelor of Science in Computer Engineering (First-Class Honours)
Thesis Title	“Genetic Programming in Multi-Agent Systems: an Application”
Name and type of organization providing education and training	Università degli studi di Palermo
Principal subjects/occupational skills covered	Object Oriented Programming Languages, Network Protocols, Digital Image Processing, Data Base, Artificial Intelligence, Robotics

Work experience

Dates	From January 2015
Occupation or position held	Research Fellow
Main activities and responsibilities	Research in the field of Ambient Intelligence and Ambient Assisted Living
Name and address of employer	DEI - Politecnico di Milano, via Giuseppe Ponzio 34/5, 20100 Milano (MI) ITALY
Type of business or sector	Research in Research in the field of data analysis and pattern recognition in Ambient Intelligence
Project Info	Attiv@bili: Assistenza digitale e innovazione Sociale in Ambienti Controllati, Bando Smart Cities – Lombardia
Dates	From January 2014 to December 2015
Occupation or position held	Research Fellow
Main activities and responsibilities	Research in the field of Information Systems with a focus on energy efficiency and CO ₂ emissions in data centers and cloud environments
Name and address of employer	DEI - Politecnico di Milano, via Giuseppe Ponzio 34/5, 20100 Milano (MI) ITALY
Type of business or sector	Research in Green IT and Clouds and Adaptive Systems
Project Info	Eco ₂ Clouds: http://eco2clouds.eu/
Dates	From October 2010 to September 2012
Occupation or position held	Research Assistant
Main activities and responsibilities	Participation into the European project GAMES. Green Active Management of Energy in IT Service centres
Name and address of employer	DEI - Politecnico di Milano, via Giuseppe Ponzio 34/5, 20100 Milano (MI) ITALY
Type of business or sector	Research in Green IT and Adaptive Systems
Project Info	GAMES project: http://www.green-datacenters.eu/
Dates	From July 2009 to June 2010
Occupation or position held	Software developer
Main activities and responsibilities	Participation into the European project HUMANOBS. Design and implementation of an adaptive modular architecture for socio-communicative skills learning through observation and imitation
Name and address of employer	DINFO-Università degli studi di Palermo, viale delle Scienze ed. 6, 90128, Palermo (PA) ITALY
Type of business or sector	Research in intelligent systems

Project Info	HUMANOBS project: http://www.humanobs.org/
Dates	From March 2008 to September 2008
Occupation or position held	Software developer
Main activities and responsibilities	Implementation of a synchronization strategy between sensor nodes: development of low power sensing modules in wireless sensor based networks in nesC for tinyOS; development of Java interfaces for messages reading; development of Java interfaces for database updating
Name and address of employer	Consorzio S.I.R.I.O., viale Regione Siciliana 90146 Palermo (Pa) ITALY
Type of business or sector	Innovation in Research, Industry and Organisation
Project Info	Virtus Vini project: http://www.dinfo.unipa.it/networks/wsn/projects/virtusvini.html
Geomon project:	http://www.dinfo.unipa.it/networks/wsn/projects/geomon.html
Dates	From March 2008 to June 2008
Occupation or position held	Apprentice
Main activities and responsibilities	Research in self-organizing systems; development of a Jade/Prolog interface; development of a Jade based agent society in which individuals share Prolog knowledges
Name and address of employer	ICAR CNR, viale delle Scienze ed. 11, Palermo (Pa) ITALY
Type of business or sector	Institute of High Performance Computing and Networking
Dates	From March 2006 to July 2006
Occupation or position held	Apprentice
Main activities and responsibilities	Research in multi-agent systems and genetic programming: development of a Java/Jade application using genetic programming techniques in agent systems
Name and address of employer	ICAR CNR, viale delle Scienze ed. 11, Palermo (Pa) ITALY
Type of business or sector	Institute of High Performance Computing and Networking
Teaching	
2014/2015	Lecturer: INFORMATION SYSTEMS, Politecnico di Milano, sede Como
2011/2012 to 2014/2015	Teaching Assistant: INFORMATION SYSTEMS - PROF. B. PERNICI, Politecnico di Milano, sede Leonardo
2013/2014 to 2014/2015	Teaching Assistant: INFORMATION SYSTEMS - PROF. C. CAPPIELLO, Politecnico di Milano, sede Bovisa
2011/2012, 2013/2014 to 2014/2015	Teaching Assistant: COMPUTER BASICS - PROF. M. MATERA, Politecnico di Milano, sede Leonardo
2011/2012	Tutor: MATLAB, Politecnico di Milano, sede Leonardo
Computer Skills	
Operative Systems	Windows (good), Linux(good), Dos(medium), TinyOS(medium)
Programming languages	Java, C, C++, Matlab, Erlang, Lisp, ProLog, sql, Assembler, VHDL, HandelC, NesC, HTML, Javascript
Applications	MicrosoftOffice, OpenOffice.org
Development environments	Eclipse, NetBeans, Matlab, Protège, VisualC++, Code::Blocks

Databases
Others

sqlServer, Access
CSS, Jade, UML, AutoCAD, OpenGL, LaTeX

Personal skills and competences

Mother tongue(s)

Italian

Self-assessment
European level^(*)

Understanding		Speaking				Writing			
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user

^(*) Common European Framework of Reference (CEF) level

English

TOEFL Certification (internet based) with score 88/120

Social skills and competences
Organizational skills and competences

Good ability in collaboration achieved through work and study experiences. Team spirit
Good ability in organization, coordination and leadership improved with work experience as organizer and entertainer in baby's party

Driving license

Category B vehicle

Additional Information

Publications

Journals

Monica Vitali, Barbara Pernici, and Una-May O'Reilly. Learning a goal-oriented model for energy efficient adaptive applications in data centers. *Information Sciences*, 2015

Monica Vitali and Barbara Pernici. A Survey on Energy Efficiency in Information Systems. *International Journal of Cooperative Information Systems*, 2014

A. Kipp, T. Jiang, J. Liu, M. Fugini, M. Vitali, B. Pernici, and I. Salomie. Applying green metrics to optimise the energy consumption footprint of it service centres. *International Journal of Space-Based and Situated Computing*, 2(3):158–174, 2012

Conference Proceedings

Cinzia Cappiello, Barbara Pernici, Pierluigi Plebani, and Monica Vitali. Eco-reports in clouds. In *Energy-efficient systems workshop at ICT4S, Stockholm*, 2014

Cinzia Cappiello, Paco Melià, Barbara Pernici, Pierluigi Plebani, and Monica Vitali. Sustainable choices for cloud applications: a focus on co2 emissions. In *ICT for Sustainability 2014 (ICT4S-14)*. Atlantis Press, 2014

Monica Vitali, Una-May O'Reilly, and Kalyan Veeramachaneni. Modeling Service Execution on Data Centers for Energy Efficiency and Quality of Service Monitoring . In *IEEE International Conference on Systems, Man, and Cybernetics (SMC2013)*, 2013

C. Cappiello, P. Melia', B. Pernici, P. Plebani, and M. Vitali. Energy-Aware Process Design Optimization. In *Proceedings of the 2nd International Conference on ICT for Sustainability (ICT4S 2014)*, 2013

B. Pernici, C. Cappiello, M. Fugini, P. Plebani, M. Vitali, I. Salomie, I. Anghel, E. Henis, R. Kat, D. Chen, G. Goldberg, M. Vor dem Berge, W. Christmann, A. Kipp, T. Jiang, M. Bertoncini, D. Arnone, and A. Rossi. Setting energy efficiency goals in data centres: the GAMES approach. In *1st International Workshop on Energy-Efficient Data Centres (E2DC 2012) - In Press*, 2012

Cinzia Cappiello, Alexandre Mello Ferreira, Maria Grazia Fugini, Pierluigi Plebani, and Monica Vitali. Business process co-design for energy-aware adaptation. In *In Proc. of the IEEE 7th International Conference on Intelligent Computer Communication and Processing (ICCP)*, 2011

H. Dindo, A. Chella, G. La Tona, M. Vitali, E. Nivel, and K. Thórisson. Learning problem solving skills from demonstration: an architectural approach. *Artificial General Intelligence*, pages 194–203, 2011

D. Chen, E. Henis, R. I. Kat, D. Sotnikov, C. Cappiello, A. Mello Ferreira, B. Pernici, M. Vitali, T. Jiang, J. Liu, and A. Kipp. Usage centric green performance indicators. In *GreenMetrics 2011 (Workshop of SIGMETRICS 2011)*, 2011

M. Vitali, M. Cossentino, R. Rizzo, and S. Gaglio. A genome based vision of multi-agent systems. In *3rd International Conference on Agents and Artificial Intelligence (ICAART 2011)*, volume 2, pages 406–409, January 2011

E. Ardizzone, H. Dindo, G. Mazzola, M. Scriminaci, and M. Vitali. Multi-directional detection of scratches in digitized images. In *Proceeding of 17th European Signal Processing Conference (EUSIPCO 2009)*, 2009

A. Ciuro, M. Cossentino, G. Fontana, S. Gaglio, R. Rizzo, and M. Vitali. Towards a new inheritance definition in multi-agent systems. In *Proceeding of Workshop on Objects and Agents (WOA 2008)*, pages 54–60. Seneca Edizioni, November 2008

Awards

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| 2004-2005-2007 | Winner of a scholarship for merits to support university studies released by the Ministry of Public Instruction, Italy |
| 2012-2013 | Winner of a scholarship for merits and support to Ph.D. university study from the Ministry of Public Instruction, Italy |
| 2012 | Winner of a scholarship for participating to the <i>2nd 804 COST Training School on Energy Efficiency in Large Scale Distributed Systems</i> held in Palma de Mallorca, 24-27 April 2012 |
| 2012 | Winner of the “Progetto Roberto Rocca” scholarship for six months research stay at Massachusetts Institute of Technology |