

CURRICULUM VITAE

Marco Biazzi

Personal Information

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Education

- 2010 **PhD in Information and Communication Technologies**
- *Institution* : Università di Trento – DISI
 - *Thesis title* : Gossiping Optimization Framework. A decentralized P2P architecture for function optimization
 - *Advisor* : Prof. Alberto Montresor
- 2005 **MS in Computer Science** (110/110 *cum laude*)
- *Institution* : Università Ca' Foscari – Venezia
 - *Dissertation title* : Web Application Frameworks : stato dell'arte, problemi, prospettive (Web Application Frameworks : state of the art, problems, prospects)
 - *Supervisor* : Prof. Alberto Pravato
- 2003 **Bachelor in Computer Science** (110/110 *cum laude*)
- *Institution* : Università Ca' Foscari – Venezia
 - *Dissertation title* : Una libreria di funzioni per l'estrazione di caratteristiche dalle immagini digitali (A software library to extract features from digital images) □ *Supervisor* : Prof. Augusto Celentano
- 1997 Attended courses of the Faculty of Philosophy
- *Institution* : Università Lateranense – Roma
 - *Acquired knowledge* : History of Philosophy, Philosophy of Language, Philosophy of Science, Anthropology, Elements of Psychology Dismissed in 1999.

Professional experience

- 2015-today Development Engineer at [Amadeus S.a.S. – Sophia Antipolis](#) – Team FLE.
- *Task* : **Maintenance and feature development of core flight search engine**.
 - *Skills* : C, C++, Linux, Git, Bash scripting, Deployment and Testing tools, Eclipse IDE, Qt Creator, Python.
- 2014-2015 Research Engineer
- *Institution* : INRIA – Sophia Antipolis – Equipe COATI / Scale
 - *Task* : Research and development: scalable distributed algorithms to compute constrained walks on dense graphs (collaboration with Amadeus).
- 2012-2014 Post-Doctorate
- *Institution* : INRIA – Bretagne Atlantique – Equipe Triskell / DiverSE
 - *Task* : Quantitative characterization of successful open source software projects through data mining and ecology-inspired data analysis techniques.
- 2011-2012 Post-Doctorate
- *Institution* : University of Nantes – LINA-GDD. Distributed Systems research group.
 - *Task* : Design of distributed algorithms to manage and exploit user preferences in P2P applications, while preserving the data privacy each user agreed upon.
The task was assigned within the “P2P Web” project (<http://www.images-etreseaux.com/fr/content/p2pweb>).
- 2009-2011 Research and development
- *Institution* : University of Trento – DISI. Networking research group.
 - *Task* : Design and development of gossip protocols to support real time P2P audio/video streaming for the NAPA-WINE project (EU FP7-ICT-2007-1)
- 2004-2006 Temporary Collaboration
- *Company* : ShP Software House Padovana – Italy.
 - *Task* : Event driven UI and applications. Development of small industrial applications for human-machine interaction, written in C++, for Microsoft Windows OS.

Research and Development

- Empirical analysis of **Git-based software repositories**.
I developed a java tool set that can mine and analyze the structural properties of git repositories.
The final goal would be to assess correlations between the repository topology and good/bad development practices which affect the code evolution.
The source code is freely available on <http://github.com/marbiaz/GitWorks> .
- P2P algorithms for **decentralized user preferences elicitation**.
I designed and developed a decentralized java P2P service that enables users to define and personal preferences to be used to modify the distribution overlay topology of file sharing P2P applications.
Part of the source code is freely available on <http://github.com/marbiaz/WhatUsersWant> .
- Design and implementation of **distributed function optimization algorithms**.
In particular, I designed and implemented gossip-based decentralized variants of several nature-inspired heuristics, such as Particle Swarm Optimization, or Differential Evolution. Part of the source code is freely available on <http://p2poem.sf.net> .

Skills

Software development / maintenance

Java (JSP, JDBC, JGit) (research prototypes design and development)
Shell scripting (Unix-Linux system automation)
C (ad-hoc application library development)
C++ (basic skills)
Python (basic skills)
Git (deep knowledge and high expertise)
SVN (standard operational expertise)
OS: Linux (administrator level skills)
MS Windows (standard operational skills)
Mac OS (standard operational skills)

Languages

Italian (mother language)
English (fluent, both written and spoken)
French (operational)

Others

Research-oriented mindset and skillset + strong empirical attitude

Specific advanced courses attended as Ph.D. candidate:

- Efficient Boolean reasoning,
- Empirical Methods for the Analysis and Design of Algorithms,
- Entrepreneurship,
- Peer-To-Peer (P2P) Overlay Networks: Systematic Design and Practical Implementations, □
Statistical Machine Learning, □ Text and Content Processing, □ Web Information Retrieval,
- Stochastic Local Search.

Teaching

2006-2010 Teaching assistant at Università di Trento, department of Computer Science.

Course: Algorithms and Data Structures

2001-2004 Teaching assistant at Università Ca' Foscari – Venezia, department of Computer Science. Course: Software Engineering

Publications

The complete list of my publications in national (French) and international conferences and journals is available at my home page: <http://marbiaz.github.io> .

Other Professional Activities

I am **Program Committee Member** of ACM Genetic and Evolutionary Computation Conference (GECCO) since 2010, for the Parallel Evolutionary Systems (PES) track.

I served as **reviewer** upon request for the following **international journals**:

- IEEE Transactions on Evolutionary Computation – 2013 and 2014
- Elsevier's Future Generation Computing Systems Journal – 2012
- Springer's Computing – 2012 SI: Extreme Distributed Systems
- NaCo : Natural Computing Journal – 2012
- JOSH : Journal of Scheduling – Volume 13 / 2010
- AMAI : Annals of Mathematics and Artificial Intelligence – Volume 57 / 2009