Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Gianmarco De Francisci Morales**
Telephone(s)	(+39) 0933 823163 Mobile (+39) 328 0137307
E-mail(s)	gianmarco.dfm@gmail.com
Nationality	Italian
Date of birth	07/07/1983

Work experience

Dates	Nov 09 →
Occupation or position held	Research collaborator
Main activities and responsibilities	Research on Cloud Computing for Large Scale Data Analysis. Collaboration to European projects (VISITO, ASSIST). Participation to international conferences to present research results.
Name and address of employer	ISTI-CNR (National Research Council) Pisa (Italy)

Dates	Oct 10 - Mar 11
Occupation or position held	Research intern
Main activities and responsibilities	Research on Large Scale Data Processing with Cloud Computing.
Name and address of employer	Yahoo! Research Barcelona (Spain)

Dates	Apr 10 - Aug 10
Occupation or position held	Google Summer of Code student
Main activities and responsibilities	Contribution to Pig, an open source project from the Apache Software Foundation and a Hadoop ecosystem project. Design and implementation of a binary comparator for secondary sort. (Java) The developed comparator resulted 10x faster than the original one, and produced a 20% end-to-end performance increase for relevant queries. https://issues.apache.org/jira/browse/PIG-1295
Name and address of employer	Google

Dates	May 07 - Feb 09
Occupation or position held	System administrator
Main activities and responsibilities	Administration of Linux clusters for High Performance Computing (HPC). Management of Grid middleware (gLite). Porting, integration and development of Grid-enabled and parallel (MPI) applications.
Name and address of employer	Consorzio COMETA Catania (Italy)

Dates	Apr 04 - Jul 04
Occupation or position held	Programmer intern
Main activities and responsibilities	Development of a Java framework for booking and allocation of resources in a Grid environment.
Name and address of employer	INFN (National Institute for Nuclear Physics) Catania (Italy)

Dates	Jun 02 - Sep 02
Occupation or position held	Personal teacher
Main activities and responsibilities	One to one teaching of mathematics, algebra and geometry.

Education and training

Dates	Mar 09 →
Title of qualification awarded	Computer Science and Engineering PhD Student
Principal subjects / occupational skills covered	First in admission ranking, scholarship sponsored by the European Union.

Thesis topic:
Cloud Computing for Large Scale Data Analysis.

Courses:
Complex networks.
Formal methods for model checking.
Advanced networking architectures.
Game theory for computer science.
Data integration and semi-structured databases.
Web algorithmics.
Techniques for high availability in distributed systems.
Anonymity and trust.
Data fusion.

Developed projects:
- Formal verification of the 2PC and 3PC distributed consensus protocols.
- Simulator of the deficit round robin scheduling algorithm. (Python) |
| Name and type of organisation providing education and training | IMT Institute for Advanced Studies
Lucca (Italy) |
Level in national or international classification	ISCED 6
Dates	3 Jul 10 - 10 Jul 10
Title of qualification awarded	Lipari School on Computational Complex Systems attendance certificate
Principal subjects / occupational skills covered	Social Networks.
Graph mining, Social network analysis, Dynamical processes on complex networks, Rise of cooperation in society with greed.
Name and type of organisation providing education and training	Jacob T. Schwartz International School for Scientific Research
Lipari (Italy)
Dates	6 Jul 09 - 10 Jul 09
Title of qualification awarded	CASE Summer School attendance certificate
Principal subjects / occupational skills covered	Agile software process management.
Test Driven Development (TDD).
Continuous testing of configurable systems.
Software and process measurement.
Name and type of organisation providing education and training	Free University of Bozen
Bolzano (Italy)
Dates	9 Dec 08 - 18 Dec 08
Title of qualification awarded	Matlab Course attendance certificate
Principal subjects / occupational skills covered	Matlab:
Fundamentals, GUI design, integration with external languages, distributed and parallel computing.
(ML01 - ML04 - ML05 - DC01)
Name and type of organisation providing education and training	The MathWorks
Palermo (Italy)

Dates	Oct 04 - Apr 08
Title of qualification awarded	Master's degree in Computer Engineering
Principal subjects / occupational skills covered	Master's degree in Computer Engineering, with full marks and honours (110/110 cum laude). Developed projects: - Module for user authentication using digital certificates on the J2EE platform. (Java, Tomcat) - Linux kernel module (for versions 2.4 and 2.6) for dynamic smoothing of IP packets by a fuzzy controller in a soft real-time environment. (C) - Hardware description of a 2 levels cache memory hierarchy. (VHDL) Hardware description of a comunication channel (bus) between processor and memory. (C++, SystemC) - Compiler from "Fuzzy Language" to Java bytecode. (Java) - Image processing web service (2 step filter). (Java, Glassfish) - Web Service enabled three-level information system for university exams management. (C#, MS SQL Server) - Industrial CAN fieldbus simulator. (C++, Omnet) - Distributed system for on-line catalogue management. (Java, RMI, AXIS, MySQL) Thesis: "Multi-objective design space exploration of embedded systems in a Grid environment" (developed in C++, written in English)
Name and type of organisation providing education and training	University of Catania, College of Engineering Catania (Italy)
Level in national or international classification	ISCED 5
Dates	Mar 06 - Aug 06
Title of qualification awarded	Erasmus student
Principal subjects / occupational skills covered	Artificial Intelligence: agent based programming, problem solving, search theory, logical reasoning and inference (boolean and first-order), planning, uncertainty and probabilistic reasoning (Bayes nets), learning. Patterns in Java: theory and practice on GoF (Gang of Four) and architectural (MVC, worker thread) patterns in Java language. CNN (Cellular Neural Networks): cellular wave computers, uncoupled CNN dynamics, template analysis and design, coupled CNN dynamics (stability analysis, binary template design, pattern formation). CNN universal machine architecture, algorithms and physical implementations. Image processing with CNN-UM. Courses and exams in English.
Name and type of organisation providing education and training	Pazmany Peter Catholic University Budapest (Hungary)
Dates	Nov 04 - Nov 04
Title of qualification awarded	PET Certificate (ESOL)
Principal subjects / occupational skills covered	Written and spoken English. Passed with merit.
Name and type of organisation providing education and training	University of Cambridge
Level in national or international classification	European level B1
Dates	Oct 01 - Oct 04
Title of qualification awarded	Bachelor's degree in Computer Engineering
Principal subjects / occupational skills covered	Bachelor's degree in Computer Engineering, with full marks and honours (110/110 cum laude). Developed projects: - Residence management tool. (MS Access) - Digital modulation tool. (Matlab)

	- Routing algorithm simulator. (Java) - Distributed newsreader (client-server). (Java, RMI, XML) - Spell checker. (C++) - E-Commerce Web site. (PHP, MySQL) Thesis: "Serivzi di allocazione e monitoraggio dei job e delle risorse di una Grid" (Allocation and monitoring services for jobs and resources in a Grid environment, developed in Java)
Name and type of organisation providing education and training	University of Catania, College of Engineering Catania (Italy)
Level in national or international classification	ISCED 4

Dates	Sep 96 - Jul 01
Title of qualification awarded	High school degree
Principal subjects / occupational skills covered	High school focusing on sciences degree, with marks of 100/100 Mathematics, Physics, Italian, Latin, Philosophy, History, Biology, Astronomy, Chemistry, English.
Name and type of organisation providing education and training	Scientific Lyceum "E. Vittorini" Gela (Italy)
Level in national or international classification	ISCED 3

Personal skills and competences

Mother tongue(s)	**Italian**

Other language(s)	

Self-assessment

European level (*)

	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
English	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
Spanish / Castilian	B2	Independent user	B1	Independent user	B2	Independent user	B1	Independent user	B1	Independent user
Japanese	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User

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

Social skills and competences	Good adaptation capability to different cultural environments, acquired through various study periods of English language abroad, a 5 months period spent in Hungary with the "Erasmus" exchange program and a 6 months period spent in Spain during my PhD. Good relational abilities acquired interacting with colleagues during project development and working in team during internships.
Organisational skills and competences	Effective time management capability: I am able to focus on one target at a time to be able to get the most from my abilities while working on multiple projects at the same time. I went through the university with ease while working and cultivating personal interests thanks to self-motivation. I effectively managed my priorities and adapted myself to the pace needed. Moreover I have learned to manage at best my spare time and to appreciate travels thanks to my "off-site" student's life experience.
Computer skills and competences	Optimal knowledge of the most widespread operating systems: Linux, Mac OS X, Windows XP. Good knowledge of office software suites (MS Office, LibreOffice), and of scientific tools (Matlab). Known languages: Java, C/C++, Python, C#, Bash, PHP, SQL, XML, LaTeX. Databases: MySQL, MS SQL Server. Deep knowledge of the structure and functioning of computers. Network management (wired and

wireless), security (firewall, cryptography, VPN). Design and administration of dynamic web sites. Cluster and computing farm management. Virtualization technologies (VMWare, KVM). Version control systems (subversion, git) and build systems (ant, ivy). Cloud Computing technologies (Hadoop ecosystem).

Other skills and competences	Hobbies: chess, archery, basket, anime, computer games. Reading aptitude.
Driving licence(s)	B

Additional information

Publications:

"Document Similarity Self-Join with MapReduce"
In proceedings of 10th IEEE International Conference on Data Mining, 2010, Sydney, 2010. ICDM'10.

"Scaling Out All Pairs Similarity Search with MapReduce"
In proceedings of the 8th Workshop on Large-Scale Distributed Systems for Information Retrieval, Geneva, 2010. LSDS-IR'10, pp. 27-32

"Large-scale Data Analysis on the Cloud"
In proceedings of XXIV Convegno Annuale del CMG-Italia, Rome, 2010 (Best Paper Award)

"The Sicilian Grid Infrastructure for High Performance Computing"
International Journal of Distributed Systems and Technologies (IJDST), 1(1):40–54, January 2010

"An Effective Methodology to Multi-objective Design of Application Domain-specific Embedded Architectures"
In proceedings of Digital System Design Architectures, Methods and Tools, Patras, 2009. DSD '09. 12th EUROMICRO, pp. 643-650

"Multi-objective Design Space Exploration of Embedded Systems in a Grid Environment"
In proceedings of Workshop finale dei Progetti Grid del PON Ricerca 2000-2006, Catania, 2009, pp 46

"High Performance Computing for Embedded System Design: A Case Study"
In proceedings of Digital System Design Architectures, Methods and Tools, Parma, 2008. DSD '08. 11th EUROMICRO, pp. 656-659

Additional references supplied on request.