



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Gianmarco De Francisci Morales**

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Nationality Italian

Date of birth 07/07/1983

Gender Male

Work experience

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 sub-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)

Type of business or sector

Dates Apr 04 - Jul 04

Occupation or position held Programmer (internship)

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)

Type of business or sector

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	<p>First in admission ranking, scholarship sponsored by the European Union.</p> <p>Thesis topic: Cloud Computing for large scale data analysis.</p> <p>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.</p> <p>Developed projects: - Formal verification of the 2PC and 3PC distributed consensus protocols. - Simulator of the deficit round robin scheduling algorithm. (Python)</p>
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	<p>Social Networks. Graph mining, Social network analysis, Dynamical processes on complex networks, Rise of cooperation in society with greed.</p>
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	<p>Agile software process management. Test Driven Development (TDD). Continuous testing of configurable systems. Software and process measurement.</p>
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	<p>Matlab: Fundamentals, GUI design, integration with external languages, distributed and parallel computing. (ML01 - ML04 - ML05 - DC01)</p>
Name and type of organisation providing education and training	The MathWorks Palermo (Italy)
Level in national or international classification	
Dates	Oct 04 - Apr 08
Title of qualification awarded	Master's degree in Computer Engineering
Principal subjects / occupational skills covered	<p>Master's degree in Computer Engineering, with full marks and honours (110/110 cum laude).</p> <p>Developed projects: - Module for user authentication using digital certificates on the J2EE platform. (Java, Tomcat)</p>

	<ul style="list-style-type: none"> - 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 communication 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)
	<p>Thesis: "Multi-objective design space exploration of embedded systems in a Grid environment" (developed in C++, written in English)</p>
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)
Level in national or international classification	
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: <ul style="list-style-type: none"> - 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)

Name and type of organisation providing education and training	Thesis: "Servizi 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)
Level in national or international classification	University of Catania, College of Engineering Catania (Italy)
Dates	ISCED 4
Title of qualification awarded	Sep 96 - Jul 01
Principal subjects / occupational skills covered	High school degree 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"
Level in national or international classification	Gela (Italy)
	ISCED 3

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment
European level ()*

English

Japanese

Spanish / Castilian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User
A1	Basic User	A1	Basic User	A1	Basic User	A1	Basic User	A1	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 and a 5 month period spent in Hungary with the "Erasmus" exchange program. Good relational abilities acquired interacting with colleagues during project development and working in team for my bachelor's internship.
Organisational skills and competences	Effective time management capability: the short exam periods have taught me to focus on one target at a time to be able to get the most from my abilities. 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, OpenOffice), and of scientific tools (Matlab). Known languages: Java, C/C++, C#, Python, PHP, Bash, SQL, XML, LaTeX. Databases: MySQL, MS SQL Server, Access. 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). Cloud Computing technologies (Hadoop ecosystem).

Artistic skills and competences	Use of simple programs for image editing (Gimp, Photoshop) and for video editing (VirtualDub, iMovie).
Other skills and competences	Hobbies: chess, archery, basket, anime, computer games. Reading aptitude.
Driving licence(s)	B
Additional information	<p>Publications:</p> <p>"Scaling Out All Pairs Similarity Search with MapReduce" In proceedings of the 8th Workshop on Large-Scale Distributed Systems for Information Retrieval, 2010. LSDS-IR'10, pp. 27-32</p> <p>"The Sicilian Grid Infrastructure for High Performance Computing" International Journal of Distributed Systems and Technologies (IJST), 1(1):40–54, January 2010.</p> <p>"An Effective Methodology to Multi-objective Design of Application Domain-specific Embedded Architectures" In proceedings of Digital System Design Architectures, Methods and Tools, 2009. DSD '09. 12th EUROMICRO, pp. 643-650</p> <p>"High Performance Computing for Embedded System Design: A Case Study" In proceedings of Digital System Design Architectures, Methods and Tools, 2008. DSD '08. 11th EUROMICRO, pp. 656-659</p> <p>Additional references supplied on request.</p>