europass

# Europass Curriculum Vitae

## Personal information

| | |
|---|---|
| Surname(s) / First name(s) | **REINA, Giuseppe** |
| Address(es) | 2, Via Costantino, 90147, Palermo, Italy |
| Telephone(s) | (0039) 328 45 18 042 |
| Email(s) | g.reina@gmail.com |
| Skype contact | giurei (GIUseppe REIna) |
| Homepage(s) | http://www-sop.inria.fr/members/Giuseppe.Reina/ |
| Nationality(-ies) | Italian |
| Date of birth | 14/02/1984 |
| Gender | Male |

## Desired employment/ Occupational field

**Computer Science Researcher, Software Designer — Information and Communication Technology**

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|---|---|
| Objective | *Pursuing Master + PhD program.* |
| Highlights | *Experience in research and industry in Italy, France and USA. 1 journal and 3 conferences publications. One best paper award. Excellent marks.* |

## Work experience

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|---|---|
| Dates | January 2009 – August 2009 |
| Occupation or position held | **Intern** |
| Main activities and responsibilities | *Distributed optimization of data delivery mechanism in intermittently connected wireless networks. Research activity, software development, statistical data analysis* |
| Name and address of employer | **INRIA: Institut national de recherche en informatique et en automatique**<br>(National Institute of Computer Research and Automatics)<br>MAESTRO Team<br>2004, Route des lucioles - BP 93 FR-06902<br>Sophia Antipolis |
| Type of business or sector | Research. |

| | |
|---|---|
| Dates | February 2008 – April 2008 |
| Occupation or position held | **QA Tester** |

| | |
|---|---|
| Main activities and responsibilities | *Test planning. Alpha testing (usability, functionality, understandability, stress, etc.). Bug tracker. Software developer. Quality Assurance and testing on new suite of 64bit products being developed by ICONICS.* |
| Name and address of employer | **ICONICS, Inc**<br>100 Foxborough Blvd.<br>Foxborough, MA 02035<br>USA |
| Type of business or sector | ICONICS is a leader in the development of Web-enabled manufacturing intelligence and business visualization software. |
| Dates | June 2007 – August 2007 |
| Occupation or position held | **Intern** |
| Main activities and responsibilities | *Reverse engineering of a Java simulator and implementation of Activator-Inhibitor based biologic algorithms over Wireless Sensor Networks. Data harvesting and statistical analysis.* |
| Name and address of employer | **INRIA: Institut national de recherche en informatique et en automatique**<br>(National Institute of Computer Research and Automatics)<br>MAESTRO Team<br>2004, Route des lucioles - BP 93 FR-06902<br>Sophia Antipolis |
| Type of business or sector | Research. |
| Dates | April 2006 – July 2006 |
| Occupation or position held | **Research assistant** |
| Main activities and responsibilities | *Development of a measurement infrastructure to study the reliability of BitTorrent peer to peer system. Carried out related measurement experiments on the Internet for 3 months. Statistical analysis of the data.Research activity in collaboration with CNRG (Computer Network Research Group) at the University of Massachusetts Amherst* |
| Name and address of employer | **Università degli studi di Palermo**<br>Information Theory and Telecommunications Group<br>(gruppo di Telecomunicazioni e Teoria dell'Informazione, TTI)<br>Dept. of Electrical, Electronics and Telecommunications Engineering<br>viale delle Scienze, ed. 9<br>90128 Palermo, Italy |
| Type of business or sector | Research |

## Education and training

| | |
|---|---|
| Dates | September 2006 - Ongoing |
| Title of qualification awarded | **in progress** |
| Grade | **in progress** |
| Principal subjects/Occupational skills covered | *Advanced Computer Architectures, Computer Graphics, Nonlinear Programming, Information Systems, Computer History, Artificial Intelligence, Advanced Computer Vision, Advanced Computer Programming, Computer Engineering 2, Human Machine Interaction, Information Systems Security, Coding Theory, Robotics* |

| | |
|---|---|
| Name and type of organization providing education and training | **Università degli Studi di Catania**<br>Dept. of Telecommunications and Computer Engineering<br>6, Via Andrea Doria<br>95125 Catania<br>**Università degli studi di Palermo**<br>Dept. of Computer Engineering<br><br>viale delle Scienze, ed. 9<br>90128 Palermo, Italy |
| Level in national or international classification | Master's degree (Laurea Specialistica) in Computer Engineering for Smart Systems |
| Dates | September 2002 – April 2006 |
| Title of qualification awarded | **Bachelor's degree (Laurea Triennale) in Computer Engineering** |
| Grade | **110/110 first-class honours (cum laude)** |
| Principal subjects/Occupational skills covered | *Computer Architectures, Linear Programming, Computer Programming, Operating Systems, Digital Electronics, Statistics and Probability, Mathematical Analysis, Mathematical Analysis 2, Databases, Linear Algebra, Physics, Computer Programming, Electrotechnics, Computer Networks, Artificial Intelligence, Economy, Signal Processing, Electronic Communications, Image Processing, Cognitive Robotics, Automatic Control, Software Engineering, Analog Electronics* |
| Name and type of organization providing education and training | **Università degli studi di Palermo**<br>Dept. of Computer Engineering<br>viale delle Scienze, ed. 9<br>90128 Palermo, Italy |
| Level in national or international classification | Bachelor's degree (Laurea Triennale) in Computer Engineering |
| Dates | September 1997 – July 2002 |
| Title of qualification awarded | **High school Diploma (Diploma di maturità scientifica)** |
| Grade | |
| Principal subjects/Occupational skills covered | *Mathematics, Physics, Biology, Chemistry, Latin, Philosophy* |
| Name and type of organization providing education and training | Major in scientific studies. Liceo Scientifico Galileo Galilei, 54, Via Danimarca, 90100 Palermo, Italy |
| Level in national or international classification | Secondary school |

## Thesis

| | |
|---|---|
| Degree | Bachelor's degree (Laurea Triennale) in Computer Engineering |
| Title | **An experimental study on the peer to peer network: BitTorrent** |
| Supervisor | Prof. Ilenia Tinnirello, University of Palermo, Palermo, Italy |

Abstracts

*After CacheLogic stated in 2004 that BitTorrent is responsible of 53% of the p2p traffic and 35% of the entire internet traffic, this peer to peer network caught the attention of the research community. The aim of this thesis is to study the behaviour of the peer to peer network Bittorrent by harvesting data related both to the dynamic evolution of the swarm and to the path characteristics between the peers. While a quantitative analysis of the BitTorrent communities dynamics is by itself interesting for researchers and network administrators because of the big traffic amount produced by this protocol, the path characterization is the first step to evaluate the possibility to integrate a Multipath Congestion Controller in BitTorrent clients.*

## Publications

### Journals

[IEEEPervCom06]

Alessandro Genco, Salvatore Sorce, Giuseppe Reina, and Giuseppe Santoro.
An agent-based service network for personal mobile devices.
*IEEE Pervasive Computing*, 5(2):54–61, 2006.

> **Abstract:** PDAs and mobile phones have become users main interactive media platform for digital information and services. Taking advantage of this development, the Agent Network for Bluetooth Devices uses personal mobile devices equipped with Bluetooth connection capability as human environment interfaces to supply users with ad hoc information or services. Mobile agents are used for selecting information, composing dynamic networks, and defining service access modes.

### Conferences

[Bionetics07]

Giovanni Neglia and Giuseppe Reina.
Evaluating activator-inhibitor mechanisms for sensors coordination.
In *2nd International Conference on Bio-Inspired Models of Network, Information, and Computing Systems, Budapest, Hungary*, Best Paper Award, December 2007.

> **Abstract:** The possibility to employ reaction-diffusion models to build spatial patterns in sensor networks has been advocated in other works. Nevertheless it has not been investigated how the biologically-inspired solutions perform in comparison to more traditional ones taking into account speciÂ¯cities of sen- sor networks like severe energy constraints. In this paper we present some preliminary results on the comparison be- tween a biologically inspired coordination mechanism based on activator-inhibitor interaction and a simple mechanism, where nodes do not communicate but activate their sensing circuitry according to some probability.

[Infocom07] Giovanni Neglia, Giuseppe Reina, Honggang Zhang, Donald F. Towsley, Arun Venkataramani, and John S. Danaher.
Availability in bittorrent systems.
In *INFOCOM 2007. 26th IEEE International Conference on Computer Communications. IEEE (acceptance rate 18%)*, pages 2216–2224, 2007.

**Abstract:** In this paper, we investigate the problem of highly available, massive-scale file distribution in the Internet. To this end, we conduct a large-scale measurement study of BitTorrent, a popular class of systems that use swarms of actively downloading peers to assist each other in file distribution. The first generation of BitTorrent systems used a central tracker to enable coordination among peers, resulting in low availability due to the trackerâs single point of failure. Our study analyzes the prevalence and impact of two recent trends to improve BitTorrent availability: (i) use of multiple trackers, and (ii) use of Distributed Hash Tables (DHTs), both of which also help to balance load better. The study measured over 20,000 torrents spanning 1,400 trackers and 24,000 DHT nodes over a period of several months.We find that both trends improve availability, but for different and somewhat unexpected reasons. Our findings include: (i) multiple trackers improve availability, but the improvement largely comes from the choice of a single highly available tracker, (ii) such improvement is reduced by the presence of correlated failures, (iii) multiple trackers can significantly reduce the connectivity of the overlay formed by peers, (iv) the DHT improves information availability, but induces a higher response latency to peer queries.

[SIGUCCS05] Alessandro Genco, Giuseppe Reina, Paolo Raccuglia, Giuseppe Santoro, Laura Lovecchio, Salvatore Sorce, Rosario Messineo, and Giorgia Di Stefano.
An augmented campus design for context-aware service provision.
In *SIGUCCS '05: Proceedings of the 33rd annual ACM SIGUCCS conference on User services*, pages 92–97, New York, NY, USA, 2005. ACM.

**Abstract:** This paper deals with the design of a multi modal system for pervasive context- aware service provision and human-environment interaction in augmented environments by the use of Personal Digital Assistants (PDA) or SmartPhones. The system enables mobile devices and remote displays to perform as interaction devices with pervasive applications which run on a dynamically composed server network. Visual interaction for service setup and provision are driven by appropriate graphical interfaces and XML-based protocols, which are dynamically composed according to the type of service and to the user current position by means of a mobile agent-based framework. The paper discusses both protocols, hardware and software system components. The first part of the document gives a general description of the system, which is managed by an entity-driven organization in augmented reality. The mobile and reference devices of the system framework are then discussed, along with the mobile agent software which is used to manage connections among them and with system entities. The paper also gives some details about the ad-hoc protocols for entity interaction. Next, a case study is discussed dealing with service provision in a campus augmented environment which has been arranged according to service requirements. Finally the paper discusses some user experiences while using trial services.

**Technical Reports**

[INRIA07TR] Giovanni Neglia and Giuseppe Reina.
Evaluating activator-inhibitor mechanisms for sensors coordination.
Technical report, INRIA, 2007

[UMASS06TR] Giovanni Neglia, Giuseppe Reina, Honggang Zhang, Donald F. Towsley, Arun Venkataramani, and John S. Danaher.
Availability in bittorrent systems.
Technical Report Technical Report 06-41, UMASS, 2006

## Awards

Dates: January 2009 - August 2009
Award: **EGIDE Scholarship**
Description: French organization for international mobility for french researchers abroad and foreign researchers in France.

Dates: December 2007
Award: **Best Paper Award**

Description | Best Paper Award for Evaluating Activator-Inhibitor Mechanisms for Sensors Coordination, Giovanni Neglia and Giuseppe Reina in Bionetics 2007, Dec 2007, Budapest, Hungary.

Dates | June 2007 - August 2007

Award | **EGIDE Scholarship**

Description | French organization for international mobility for french researchers abroad and foreign researchers in France.

## Computer Science Knowledge

### Project developed

[WiiDesign] | Giuseppe Santoro and Giuseppe Reina.
Debugging and developing new feature of teambots software, in progress 2009.
University assignment.

> **Abstract:** WiiDesign is a software designed to manipulate a photo using a multi-touch display. In this project I developed the idea of Johnny Chung Lee about a "Low-Cost Multi-point Interactive Whiteboards Using the Wiimote" (`http://www.cs.cmu.edu/~johnny/projects/wii/`). I have created a WPF (Windows Presentation Software) software that allow a user to interact through a Wii Controller, a personal computer and two led pen.
>
> **Keyword:** C#, .Net, WPF, WCF, Bluetooth, Wiimote controller, Human Machine Interaction principles

[Amanuensis] | Giuseppe Reina and Giuseppe Santoro.
A C# logging tool, December 2008.
Personal project.

> **Abstract:** Amanuensis is a logging shared library for C# application
>
> **Keyword:** C#, .Net, SQLite, Software Design principles

[AmanuensisViewer] | Giuseppe Reina and Giuseppe Santoro.
A graphical tools to display Amanuensis logging data, December 2008.
Personal project.

> **Abstract:** AmanuensisViewer is a WPF (Windows Presentation Foundation) graphical utility used to display Amanuensis logging data
>
> **Keyword:** C#, .Net, WPF, WCF, Software Design principles, Human Machine Interaction principles

[YperTag] Giuseppe Reina.
Semantic file system, December 2008.
Personal Project.

> **Abstract:** YperTag is a software able to convert an existing file system or a part of it into a semantic file system. Within such file system the user is able to classify, catalog and browse the files by their contents.
>
> **Keyword:** C#,.Net, SQLite, Windows shellcodes, WPF, WCF

[THEPoker] Giuseppe Reina and Giuseppe Santoro.
A Texas Hold 'Em game implementation, December 2007.
University assignment.

> **Abstract:** THEPoker (Texas Hold Em Poker) is a Web Service-based online multiplayer game implementation for Windows Pocket PC of the famous poker game version called Texas Hold 'Em.
>
> **Keyword:** C#, .Net, Windows Mobile 2006, Mobility Framework, Webservices, ADO.Net, SQLServer, Software Design principles, Human Machine Interaction principles, Extreme programming

[Thesis] Giuseppe Reina.
Swarm harvester and path characterization analizer, November 2005 - August 2006.
Thesis.

> **Abstract:** Analysis Platform was developed in Perl and it is a collection of Agent-oriented scripts that merges many existing measurement tools for the estimation of network performance metrics (like path capacity, path availability, Round Trip Time, hops, etc.). This software was designed to work in a distributed environment, in particular every agent script is able to work from many remote machine in order to gather data from different point on the internet and then merge it. Thus the software is able to obtain a full dossier for every analysed peer. PeersHarvester is a tool, developed in C, able to collect from the tracker information about the peers interested into a specific BitTorrent content.
>
> **Keyword:** Perl, C, Bencode, Bash, Python, Architectural Patterns

[Biblios] Giuseppe Reina, Giuseppe Cefalu, and Santo Cimo.
Library software for loan management, February 2006.
University assignment.

> **Abstract:** Biblios is a software designed to improve the loan management system of a library. The main goal of the project was to apply the principles of software design in order to improve the efficiency of the library and minimize the usage of the paper.
>
> **Keyword:** Java, UML, Design Patterns, Architectural Patterns

[Teambots-project]

Giuseppe Santoro Giuseppe Reina and Fabio Messina.
Debugging and developing new features of teambots framework, July 2005.
University assignment.

> **Abstract:** Teambots (`http://www.cs.cmu.edu/~trb/TeamBots/`) is an open source framework for multiagent mobile robotics research. We have solved many bugs that could allow a bad user to hack the system. We have also developed a soccer team with which we competed and won a local competition in our university.
>
> **Keyword:** Java, Prolog, SGolog

[ANBD-project]

Giuseppe Reina and Giuseppe Santoro.
An Agent Network for Bluetooth Device, March 2004.
University assignment.

> **Abstract:** ANBD (Agent Network for Bluetooth Device) is an agent-based service network for mobile device with Bluetooth technology. It was developed using JADE Java Agent DEvelopment Framework (`http://jade.tilab.com/`), an open source framework implemented by Telecom Italia Lab. In this work was introduced a possible use case concerning providing campus information to students through theirs mobile devices
>
> **Keyword:** Java, XML, Bluetooth, Java Mobility Edition, Bluetooth, Agent Oriented Programming

## Computer skills

*Self-assessment*

Programming languages

*Awk (8/10)*
*Bash scripting (9/10)*
*C (8/10)*
*C++ (8.5/10)*
*C# (9/10)*
*CSS (8/10)*
*Haskell (7/10)*
*Java (10/10)*
*Javascript (8/10)*
*Lisp (7/10)*
*Matlab (8.5/10)*
*Prolog (7/10)*
*Python (10/10)*
*S-Golog (6/10)*
*VHDL (7/10)*

Operating Systems

*Linux [Slackware] (8/10)*
*Windows (10/10)*

Databases

*Sql (8/10)*
*MySql (7/10)*

*SQLite (9/10)*

Development Environment

*Eclipse (9/10)*
*Visual Studio (8/10)*
*Matlab (8.5/10)*
*Mathematica (8/10)*

Graphics

*3D Studio Max (7/10)*
*Maya (7/10)*
*Adobe After Effects (7/10)*
*Adobe Premiere (7/10)*
*Flash (7/10)*
*Photoshop (9/10)*

Others

*Design Patterns (9/10)*
*Extreme Programming (7/10)*
*HTML (7/10)*
*Latex (8/10)*
*Neural Networks (6/10)*
*SVN (8/10)*
*UML (8/10)*
*Web Services (6/10)*
*WPF Windows Presentation Foundation (7/10)*
*XML (7/10)*
*CVS (7/10)*

## Personal skills and competences

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**Languages**

Mother tongue(s) **Italian**

Other language(s) English, French, Japanese

*Self-assessment*
*European level*(*)

| Understanding | | Speaking | | Writing |
|---|---|---|---|---|
| Listening | Reading | Spoken interaction | Spoken production | |
| **English** | C2 Proficient user | C2 Proficient user | B2 Independent user | B1 Independent user | C1 Proficient user |
| **French** | B1 Independent user | B2 Independent user | A2 Basic user | A2 Basic user | A1 Basic user |
| **Japanese** | A1 Basic user | A1 Basic user | A1 Basic user | A1 Basic user | A1 Basic user |

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

**Personal skills**

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|---|---|
| Social skills and competences | *Great aptitude to work independently (see solo project) and successful experience of working in a project team. Open mind towards others culture, customs and religions.* |
| Organisational skills and competences | *Great aptitude to preside project team, because of my diplomacy and my personal appeal.* |
| Technical skills and competences | *Strong background in IT (see Skills)* |
| Other skills and interests | ***Hobbies:*** *Reading book and computer journal, Sport, Music, Guitar, Fishing, Cooking, Logic games and Riddles —* ***Book genre:*** *Science Fiction, Comics, Fantasy, Manga —* ***Music genre:*** *Jazz, Classic, Rock, Pop —* ***Sports genre:*** *Swimming, Jogging, Volleyball, Fitboxe —* ***Movies genre:*** *Sci-Fi, Action, Thriller, Fantasy, Animation, Adventure, Mystery, TV series —* |
| Licence(s) | Driving license (level B european driving license) |

## References

| | |
|---|---|
| Name | **Giovanni NEGLIA** |
| Position | Researcher (CR2) at Maestro Team |
| Institution | INRIA: Institut national de recherche en informatique et en automatique (National Institute of Computer Research and Automatics)<br>2004, Route des lucioles - BP 93 FR-06902<br>Sophia Antipolis |
| Email | *giovanni.neglia@sophia.inria.fr* |
| Tel. | *+33(0) 49238 7906* |
| Name | **Ilenia TINNIRELLO** |
| Position | Assistant Professor at Dept. of Electrical, Electronics and Telecommunications Engineering |
| Institution | Università degli studi di Palermo<br>viale delle Scienze, ed. 9<br>90128 Palermo, Italy |
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## Annexes

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