

Roberto A. Foglietta

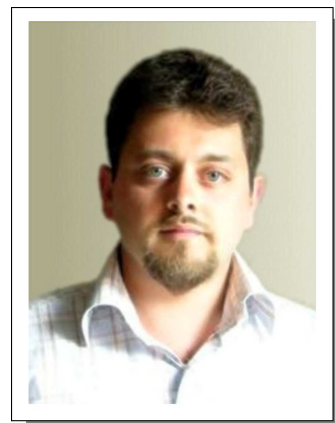
Linux embedded consultant experienced in telecommunications and automotive
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Born in Genoa, 26th march 1974. Single status. Available to move and travel abroad, long distance destinations too. Military service absolved. European driving license for car and motorcycle. Italian VAT accounted.

Curriculum Vitae

Updated 11th August 2011 - 3r.020

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Education and training record

- **2008** - One working week long Linux embedded training course by Free Electrons¹ attended in Vence (France) by kindly Michael Opdenacker's invitation².
- **2006** - One year university master degree in open source and free software technology³, Linux real time networks thesis supervised by Alessandro Rubini, *Alma Graduate School dell'Università di Bologna*.
- **2004** - Bachelor degree in physic, courses plan oriented to cybernetics, score 98 over 110, *Dipartimento di Fisica dell'Università degli Studi di Genova*.
- **1993** - College diploma of technical specialization in analog and digital electronics, score 52 over 60, *I.T.I.S. Aldo Gastaldi* in Genoa.

English courses attended

Excellent in reading, good in writing and fluent in speaking English:

- **2003** - Advanced English course 8 moths long attended at Italo-Britannica Association of Genoa⁴.
- **2002** - Full immersion English course 4 weeks long attended in Valletta, Malta.
- **2002** - Intermediate English course 8 months long attended in Genoa, FCE of Cambridge achieved.
- **2001** - Full immersion English course 4 weeks long attended in a language school of Eastbourne, England.

Publications on national IT magazines

- **Hakin9 n.10**, Italian magazine about security, starting level article⁵ about cryptographic file-systems usage motivations and compared benchmarks over different storage supports, published in October 2007.
- **Linux&C. n.5 to 7**, admin-oriented Italian magazine, a series of three articles⁶ focused on an introductory Glade visual C/GTK+ programming course by examples, published since April to June 2000.

¹ Free Electrons, training course presentation - <http://free-electrons.com/training>

² Free Electrons, free seats policy page - <http://free-electrons.com/community/training/free-seats>

³ Open source and free software technology master - http://www.almaweb.unibo.it/os_presentazione.html

⁴ Italo-Britannica Association of Genoa - <http://www.italobritannica.it>

⁵ Hakin9 magazine n.10 - <http://www.it.hakin9.org/prt/view/rivista/issue/652.html>

⁶ Linux&C. magazine n.5 to 7 - <http://www.oltrelinux.com/2000/04/15/glade-costruiamo-una-gui-con-le-gtk-1>

Know-how and high level skills⁷

	<i>level of expertise in the field</i>
Linux embedded systems project and design from hardware to end user interface and/or remote control	senior
Develop of customized environment for automatic cross compilation and/or integration of software in a specific embedded system	senior
Designing graphical or textual user interfaces	senior
UNIX systems and network administration	senior
Security for networked Linux embedded systems and servers	junior
Linux kernel and driver developing	junior

Software developing skills

Software developing in C language	senior
Software integration with shell scripting	senior
CVS, SVN, Trac, Makefile	senior
PHP, HTML and web design principles	senior
Object oriented paradigm and C++ language	junior
Knowledge of SQL and database working principles	junior
Basic assembler language for some simpler microprocessors	—
Knowledge and usage of Microsoft products	—

Working experiences as self-employed

- **03/2011 - till today**, www.tecnopeople.it (co-founder and co-owner, self-employed)
I am working as technical director in Tecnopeople s.r.l. which is a private venture capital limited company which is owned and directed by technical people with 10 years of experience in their fields. The company offers digital/IP implant (IP video surveillance, networking cable planting, etc. etc.) services, system administration and IT security services. We are developing cloud computing solution integrating technologies and services with our own software and systems in order to help Italian small/medium size companies to develop or renew their IT infrastructures. Solution development is going on in New Zeland and U.S. but the system design, the project management included the milestone releases, the code check and the quality standards are verified and set by the company (me).
- **03/2010 - 03/2011** (1 year), www.linuxteam.org (team/individual, self-employed)
UNIX/Linux and network administrator, Ajax/PHP developer and project manager, office automation. I developed a passive intrusion detect system using iptables and shell scripts. Remote system administration and system check procedures automation.

⁷ The level of expertise is noted as *senior* if working experience is over 5 years, *junior* otherwise and — means less than 1 year.

- **03/2009 - 03/2010** (1 year), sabbatical year

When I was studying in Bologna for the master they included into the courses scheme also an IT management and a business courses. They included just elementary human resource management knowledge and nothing about marketing or business starting-up. So, I did it by myself reading specialized books and experimenting on the field like working two months for Vorwerk as seller or organizing events and public relations for my local LUG (Linux user group). In this time I produced marketing material for two local events, directed and montage of a video trailer, organized and publicized two cultural meeting and organized and directed three Linux courses. I became acquainted with news and marketing distribution over Internet.

Working experiences as consultant

- **11/2008 - 02/2009** (4 months), looking for a job abroad: interviewed in Sweden, France and Belgium.
- **05/2006 - 05/2006 - 10/2008** (2 $\frac{1}{2}$ years), Marconi - Ericsson s.p.a (GE)⁸, external consultant on client' site:

The first project was for the biggest part a bug fixing and a partially rewriting of a Yenta PCMCIA hot swappable compact flash driver (for the Texas Instruments 1420) for a Linux kernel running on a dual PowerPC (PPC 750) microprocessors custom board dedicated of controlling an array of optical telecommunications boards (OMS-ETN). Ongoing the project my skills have been challenged to solve some issues related to open source software system integration too.

The second project followed near immediately the first and in this case my skills have been offered to embed a Linux system into a PowerPC optical network board (MHL) for telecommunications. The main issue of this project was an extreme reduction of the embedded system storage footprint and the second was the integration of PSoS compatibility API layer to user space applications. After some months the client turned out to prefer employing VxWorks instead Linux and aborted the project but they keep me in the role until they were able to move me onto another project.

The third project was about introducing some security countermeasures in a Linux system embedded in a PowerPC board dedicated to control an array of ADSL access management boards. This controlling board was part of new version of a wide spread Marconi/Ericsson product named EDA 2530. My skills have been complemented teaming me with a senior consultant expert in security. In order to add new security features and services I decided I need a special integration software environment which I develop by myself. I also made some strong upgrades including the most critical parts of the system like the kernel and I used my own tool to integrate these changes as soon as possible.

The fourth project was the extension of the third, however the real nature of it turned out to be developing that integration software environment for the client needs too and bug fixing and stabilizing any device drivers and system tool - but not proprietary applications - has been integrated in that embedded system before I joined that team.

Skills and techs: C language, Linux kernel driver developing, Linux application developing, CVS, shell scripting, Makefile, Trac, SVN, security.

- **04/2004 - today** (4 $\frac{1}{2}$ years), Well Engineering s.r.l. (MI)⁹, spare-time per-project remote consultant:

I worked on some different projects and among them the last two has been based on Acme Systems' Fox board¹⁰ with Axis CRIS low cost CPU. My role was to design, develop and maintain the Linux and the applications embedded on those systems. The last was a box for proximity marketing (BlueFlower also known as BtBox)¹¹ able to send java applets and/or other media to many mobile phone, PDA or similar devices equipped with the bluetooth connectivity. This has been designed and developed as fast time-to-market product in order to satisfy the Italian marketing campaign about the launch of Microsoft Windows Vista. The previous was the porting of another existing product developed by me (3GCAM) from x86 to Fox board. This porting has been used in order to develop the BTBox in the fastest way.

Skills and techs: C language, shell scripting, M2M system integration, Acme System Fox board SDK, Makefile, PPP, AT modem commands, bluetooth, security.

- **04/2006 - 05/2007** (1 year), Italnord Cauzioni s.r.l (GE), web and system administrator:

⁸ Marconi is now part of Ericsson s.p.a. - <http://www.marconi.com>

⁹ Well Engineering s.r.l. - <http://www.welleng.it>

¹⁰ Acme Systems Fox board - <http://www.acmesystems.it/?id=4>

¹¹ BlueFlower - <http://www.blueflower.it>

I worked for them until they merge with another company. I was in charge for remote and on-site administration of the server, local network and web site in collaboration with the client's on-site junior administrator.

Skills and techs: SuSE Linux, shell scripting, PHP, HTML, CSS, Gimp, security.

Previous working experiences

- **03/2004 - 02/2006** (24 months): I was employed by Sistemi S.T. (BZ) and I worked for SAD Trasporto Locale S.p.A. which is a local public transportation company of the autonomous Bolzano province. I was in charge to develop some software for a Linux system embedded in a ticket automatic seller machine. I developed some software for the bus station of Bolzano and Bressanone to integrate the main information system (SII)¹² that keeps about 500 buses under control and give out information to the customer. I've been sent as a speaker at Linux World Expo 2004 in Milan to introduce SAD as the eldest Linux embedded case in Italy.

Skills and techs: C and C++ language, HTML, PHP and shell scripting, minimal exposition to SQL language.

- **12/2004 - 01/2005** (1 month): I was remotely hired by Tecnoelettrica Brianza s.n.c. (LC) to project and develop a C/C++ software in order to establish a communication link between a PLC by a Modbus¹³ and a web application. The web application itself has been developed by myself and design in collaboration with the client. This web GUI¹⁴ allow to change the colors and light intensity in dozens of PUPA cosmetics outlet/shops around the Europe.

Skills and techs: C and C++ language, HTML, PHP, MOD bus, TCP/IP sockets.

- **7/2004 - 10/2004** (4 months): I was remotely hired by Well Engineering s.r.l. (AO) to design a Linux embedded system on x86 board and to develop some software which could control a consumer digital camera. I was in charge to find a suitable camera and to suggest fast time-to-market solutions. The system would not be completely autonomous because, by a GPRS connection, download some data from a server and upload photos on it. I developed a web interface¹⁵ to keep under control the half hundred 3GCAMs¹⁶, to config them appropriately and to automatically parse the uploaded log records. Remotely maintenance and upgrade of the embedded software were specifications required.

Skills and techs: C language, shell scripting, HTML, PHP, security, Apache, networking, AT modem commands.

- **12/2003 - 01/2004** (1 month): I was hired to design a firewall and a mail/proxy server for the Telecommunications section of the Police Department of Genoa.

Skills and techs: squid proxy, qmail, iptables, security, networking.

- **10/2001 - 12/2003** (26 months): I was employed by GEA-Automotive (GE) as software developer and system integrator in the R&D department¹⁷. I develop for them a Linux embedded system, an integrated automatic compiling environment and a fast editable embedded graphical user interface for automotive cockpits.

Skills and techs: C and C++ language, CAN bus, TCP/IP sockets, DirectFB.

- **05/2001 -10/2001** (6 months): I was hired to work for CNI - Controlli Numerici Industriali (RA)¹⁸. I was hired to write using C/C++ a GTK+ GUI in order to keep under control the EMI Music Italia Operations S.p.A's expedition mechanized warehouse.

Skills and techs: Object oriented C language programming, GTK+ with soft-realtime constrains, TCP/IP sockets, minimal exposition to SQL language.

- **07/2000 - 12/2000** (6 months). I was hired to work for Siemens (MI). I was charged to complete the shell script OMP/OMC installation procedure which was able to deploy and properly configure a Solaris OS and a Oracle DB into a SUN 4000/4500 server in order to track down the GSM traffic.

Skills and techs: shell scripting, Solaris OS, SUN Sparc, CVS.

¹² Bolzano' SII - <http://www.sii.bz.it>

¹³ Some small libraries of mine - <http://www.roberto.foglietta.name/work/index.php?mod=Linux/Libraries>

¹⁴ PUPA web application - http://www.roberto.foglietta.name/work/index.php?mod=Linux/Web_applications/PUPA_control_manager

¹⁵ 3GCAM web application screen shoot - http://www.roberto.foglietta.name/work/sections/02_Linux/05_Web_applications/01_3GCAM_monitor_page.jpg

¹⁶ 3GCAM web site - <http://www.3gcam.it>

¹⁷ GEA-Automotive, Italian R&D Register of Laboratories and Workshops n.24 - <http://cordis.europa.eu/italy/presidency2003/rd-liguria1.htm>

¹⁸ CNI - <http://www.cniinformatica.it>

Activities related to my career

- **FLOSS** - Some minor contributes to these projects: dropbear (SSH-like for embedded systems), busybox (shell and tool-set for embedded systems), toybox (early born busybox-like), dillo (very light and simple web browser written in C/GTK+), Eltron P310c (user space badge printer driver), Flat Nuke 3 (CMS without any DBMS requirements), Linux Facile (Italian Linux manual), Linux Domande e Risposte (Italian Linux manual), Appunti Linux (Italian Linux manual).
- **OE2K6** - Speaker at the OpenExp 2006¹⁹ in Cerea (VR), I presented Linux as network economy phenomenon.
- **LD2K4** - Speaker at the Linux Day 2004 in Genoa, I have presented an idea about virtual tourism on the web²⁰ which example has been done in HTML and PHP.
- **LWE2K4** - Speaker at the Linux World Expo 2004 in Milan, I presented SAD Trasporto Locale Bolzano²¹ as an early Linux embedded adoption case in Italy. My presentation has been cited in the relation named "*Freie Software und Open Source in Südtirol*" by Daniel G. Siegel²².
- **LD2K3** - Speaker at the Linux Day 2003 in Agrigento, I presented an introduction to GTK+ or DirectFB and C language programming.
- **LUGGe** - Organizer and teacher in the Linux courses²³ which have been taken place in 2002, 2003, 2004 and 2007 years.
- **LD2K2** - Organizer and speaker at the Linux Day 2002 in Genova²⁴, I presented an introduction to GTK+ library usage in C language programming.
- **GTK+/C** - I developed Rubrica Italiana²⁵ using C language and GTK+ compiling it for Linux on x86 and successively for Solaris on Sparc3. This project has been abandoned.
- **LM2K** - Speaker at the Linux Meeting 2000 in Bologna²⁶ I presented an introduction to GTK+ and C language programming with the help of Glade as GUI RAD.
- **LUGGe** - Father founder and many times president of LUGGe²⁷ - Linux User Group Genova a non-profit association.
- While I was attending courses at university I worked part-time as Microsoft Windows teacher and IBM-like computer repairer and/or reseller.

Something about me

- **Books** - I like read books in Italian and English about software, open source, sociology, psychology, business, economics, marketing and public relations.
- **Music** - I like listen pop music since '70s to the most contemporary well know as Bruce Springsteen, U2, REM and some Italians like Guccini, De Andre, Ligabue.
- **Sport** - I did swim, bicycle and sky. I also did speleology for two years participating to the social and exploring activities of Gianni Ribaldone²⁸ speleoclub in Genoa.
- **Travels** - I like travel abroad and driving my car around my country and neighborhood. I visited France, England, Malta, Tunisia and Germany.
- **Animals** - I like animals in particular dogs and horses. I grown up in a countryside and I had some dogs during the years.

¹⁹ OpenExp 2006 - <http://www.openexp.it> slides - http://www.roberto.foglietta.name/pub/openexp_slides.pdf

²⁰ Virtual tourist - <http://www.roberto.foglietta.name/vtourist>

²¹ SAD presentation at LWE2K4 - http://www.roberto.foglietta.name/pub/lwe2k4/SAD_Foglietta_presentazione.pdf
speech track for the slides - http://www.roberto.foglietta.name/pub/lwe2k4/SAD_Foglietta_publicazione.pdf

²² Freie Software und Open Source in Südtirol - <http://home.cs.tum.edu/~siegel/publications/fsis.pdf>

²³ Linux courses by LUGGe - http://www.linux.genova.it/index.php?web=cosa_facciamo/corsi_linux

²⁴ Slides and documents - <http://www.roberto.foglietta.name/work/index.php?mod=Linux/Documents>

²⁵ Rubrica Italiana - <http://www.roberto.foglietta.name/old/rubrica/rubrica.htm>

²⁶ Linux Meeting 2000, Bologna - http://mail.erlug.linux.it/Linux_Meeting_Bologna/2000

²⁷ Non-profit association LUGGe - <http://linux.genova.it>

²⁸ Speleoclub Gianni Ribaldone - <http://www.ribaldone.altervista.org>