

Rodolfo Giometti

Curriculum Vitae – 11 October 2010

Personal data	
Name	Rodolfo
Surname	Giometti
Birthday's place and date	Lucca, 27 October 1970
Civil state	Married with a child
Military service	Done at Italian Air Force at «46 ^{ma} Brigata Aerea».
Address	Via di San Donato Trav.II, 98 55100 San Donato (LU)
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Homepage	http://www.enneenne.com/staff/giometti

Studies	
1999.04.01	« Diploma di abilitazione all'esercizio della libera professione di Ingegnere» at University of Pisa .
1999.02.01	« Laurea in Ingegneria Informatica » in Industry Automation and Robotics at University of Pisa . Thesis title: Controllo attraverso il sistema Real-Time Linux e monitoraggio a distanza via rete (Automatic control with Real-Time Linux and remote monitoring on the network). Score: 108/110
01/07/89	«Diploma di Perito Industriale Capotecnico» in Computer Science at I.T.I.S. E. Fermi of Lucca. Score: 58/60

Short description
<p><i>I currently live in Lucca where I work as freelance Engineer (I'm a member of Ordine degli Ingegneri of Lucca).</i></p> <p><i>I design and develop industry control automation applications and remote monitoring applications by using GNU/Linux.</i></p> <p><i>I have a good experience as GNU/Linux server syadmin also. I'm able to install and configure various common activities starting from mail server to more complex services.</i></p> <p><i>I'm Chief of the site «Professionisti e Consulenti ICT – Italia» (http://www.consulenti-ict.it/) where I publish technical and non-technical articles regarding the ICT world.</i></p>

Currently professional activities	
May 2010 – Now	<i>Member of «Commissione Informatica dell'Ordine Federale degli Ingegneri» of Toscana.</i>

Currently professional activities	
May 2010 – Now	<i>President of «Commissione Informatica dell'Ordine degli Ingegneri» of Lucca.</i>
Nov 2009 – Now	<i>Member at CNII (Comitato Nazionale dell'Ingegneria dell'Informazione) to represent the Ordine degli Ingegneri of Lucca.</i>
Jun 2009 – Now	Maintainer of the Pulse Per Second (PPS) Linux support (added into Linux's official tree since version 2.6.30) (http://wiki.enneenne.com/index.php/LinuxPPS_support).
Apr 2009 – Now	<i>Chief of the site «Professionisti e Consulenti ICT – Italia»</i> (http://www.consulenti-ict.it/).
Apr 2003 – Now	Member of the GNUdd group (http://www.gnudd.com).
Dec 2000 – Now	Member of the Ordine degli Ingegneri of Lucca .
Sep 2000 – Now	Member of the Italian magazine Linux&C..

Old professional activities	
Dec 2000 – Mar 2010	Consultant for Eurotech S.p.A. (http://www.eurotech.it) and its controlled firms: Ascensit (http://www.ascensit.com) and Exadron (http://www.exadron.com) where I developed several Linux applications for their PC104, PC104+, PowerPC, ARM and MIPS boards.
Mar 2007 – Aug 2008	Custodian of U-Boot Video Support (http://www.denx.de/wiki/U-Boot/WebHome).
Dec 2000 – Jul 2002	I worked in Pavia with Alessandro Rubini (http://arcana.linux.it) Professor at University of Pavia and author of the Linux Device Drivers published by O'Reilly (http://www.oreilly.com/catalog/linuxdrive2/).
Apr 1999 – Nov 2000	I worked as Project Manager at Sipar Sistemi Intelligenti S.p.A. in Trento (http://www.sipar.it) where I developed a defects detector system for glass and paper industrial production. During this job I lived for about two months in S. Helen (England) working at Pilkington, for about two months in Mol (Belgium) working at Glaverbel and for about two weeks in Borlänge (Sweden) working at SSAB.

Clients Portfolio	
Consultations carried out	<ul style="list-style-type: none"> • AltaLAB in Milano. • Ascensit in Udine. • Automazioni Industriali in Lumezzane (BR). • Bancolini S.p.A. in San Lazzaro di Savena (Bo). • Bticino in Erba (CO) • CAEN RFID in Viareggio (LU) • Carlo Gavazzi Space in Milano. • Euromatic in Brescia. • Eurotech S.p.A. in Udine and Eurotech Inc USA. • Exadron in Udine. • Gallacci Communications in Lucca. • Intecs in Pisa. • Neuricam in Trento.

Clients Portfolio	
	<ul style="list-style-type: none"> • OTE in Firenze and Genova. • Project Engineering in Firenze. • Selta S.p.A. in Piacenza. • Selta Telematica S.p.A. in Piacenza and Tortoreto Lido (TE). • SPES in Fabriano (AN). • Staer S.p.A. in Roma • Sysnet Telematica in Milano. • TCL Elettronica in Lucca. • Truelite in Firenze. • VDS in Scandicci (FI). • World Time Solutions in England.

Computer skills	
Operating systems	<ul style="list-style-type: none"> • Deep knowledge of UNIX systems and GNU/Linux system. • Usage of Windows/Cygwin and Mac OS-X system.
Developing tools	<ul style="list-style-type: none"> • Deep knowledge of the standard GNU-Linux/UNIX developing tools: gcc, ld, make, autotools, gdb, strace, flex, <i>binutils</i>, tcpdump, netstat, MediaWiki, etc.. • Deep knowledge of glibc library. • Good knowledge of ncurses, readline, confuse and libusb libraries. • Good knowledge of text formatting languages: texinfo, LaTeX. • Starting from the source code I developed several toolchains to cross compile code for the CPU families: Xscale (PXA255, PXA270), MPC8xx and AU1x00. • Usage of IAR compiler for micro controller msp430 family.
Tools for cooperative work	<ul style="list-style-type: none"> • Deep knowledge of GIT and CVS. • Knowledge of Subversion (SVN). • Deep knowledge of mediawiki (the wikipedia engine), redmine and mailman.
Programming languages	<ul style="list-style-type: none"> • Deep knowledge of C programming language especially on UNIX-like systems: concurrency programming and device driver programming for GNU-Linux systems. • Deep knowledge of Tcl/Tk programming language and bash, awk scripting languages. • Good knowledge of python and PHP programming language. • Usage of SQL language.
Known CPUs and platforms	<ul style="list-style-type: none"> • Intel x86 • ARM: PXA, davinci, kirkwood, IXP4xx and EP93xx • PPC: MPC8xx and MPC82xx • MIPS: AU1100
Known JTAGs and analyzing tools	<ul style="list-style-type: none"> • On MIPS/Au1100 and ARM/PXA I used JTAG TRACE32 of Lauterbach. • On ARM/PXA I used JTAGkey of Amontec managed by OpenOCD.

Computer skills	
	<ul style="list-style-type: none"> • On PPC/MPC8xx I used BDI-2000 of Abatron. • To develop on USB I used the Total Phase USB-Beagle sniffer.
Known protocols and communications systems	<ul style="list-style-type: none"> • TFTP (Trivial File Transfer Protocol). • SMTP (Simple Mail Transfer Protocol). • NTP (Network Time Protocol). • TCP/IP. UDP/IP and ARP. • SNMP (Simple Network Management Protocol). • <i>LLRP (Low Level Reader Protocol)</i>. • I2C (Inter Integrated Circuit). • CAN (Controller Area Network). • SSP (Synchronous Serial Port). • USB (Universal Serial Bus). • MMC (Multi Media Card).
Patched programs	<ul style="list-style-type: none"> • Development of custom MIB management code for NET-SNMP. • Development of a NTPD reference clock for the <i>GPS Trimble Acutime 2000</i> antenna (http://www.enneenne.com/projects/refclock_ripence). • Development of embedded data monitoring systems with SQLITE3,

Projects carried out	
Linux drivers and applications	<ul style="list-style-type: none"> • RSTP (Rapid Spanning Tree Protocol) kernel 2.4 support. • Audio codec CrystalClear SoundFusion CS4299 AC97 driver. • DS1803 driver to manage two voltage regulators on I2C bus. • I2C multiplexer support (added to official Linux's tree on 2010.08.11) (http://i2c.wiki.kernel.org/index.php/I2C_bus_multiplexing). • Maxim MAX8821 driver to manage LEDs, an audio amplifier and two voltage suppliers. • Freescale MMA7455L accelerometer driver. • Honeywell HMC6343 compass driver. • Philips PCA9531 to manage LEDs driver. • Backlight triggers support for the LED class (added to official Linux's tree on 2008.10.20). • Texas Instruments BQ27200 battery monitor support (added to official Linux's tree on 2008.09.01) • PXA270 framebuffer overlay support. • Oxford OXU210HP USB host controller driver (added to official Linux's tree since version 2.6.28) (http://wwiki.enneenne.com/index.php/Oxford_OXU210HP). • Eurotech INT-1410 audio matrix driver (http://wiki.enneenne.com/index.php/Eurotech_INT-1410). • CPU PXA270 USB device controller driver (http://wiki.enneenne.com/index.php/PXA27x_UDC). • CPU PXA270 keyboard controller driver (added to official Linux's tree on

Projects carried out

2007.03.16).

- **Silicon Labs C2 Interface** support to reprogramming Silicon Labs micro controllers (added to official Linux's tree on 2008.11.12) (http://wiki.enneenne.com/index.php/Silicon_C2_Interface).
- **Taos TSL2550** ambient light sensor driver (added to official Linux's tree on 2007.07.12).
- **Eurotech CTR-1472/1475** MPEG encoder driver (http://wiki.enneenne.com/index.php/Eurotech_CTR-1472/CTR-1475).
- **Watchdog PC8364** on Super I/O (SPIO) National PC87364 driver (<http://www.enneenne.com/projects/pc8364wdt>).
- **Dallas DS12C887** real time clock driver.
- **EPSON S1D13505** LCD/CRT driver
- **RAM disk over power-buffered RAM** support (<http://www.enneenne.com/projects/sramdisk>).
- **Philips PCF8575** I/O expander driver (http://www.enneenne.com/projects/i2c_pcf8575).
- SSP communication protocol over PXA255 CPU driver for «linux-2.4.19-rmk7-pxa2-ptx14» .
- **Infineon SEROCCO-H** HDLC controller driver to manage an **IP-over-HDLC** communication (<http://www.enneenne.com/projects/serocco>).
- **MPC850SAR Utopia MultiPHY** (PowerPC) support and **ATM** driver for mpc860sar-2.2 (<http://sourceforge.net/projects/mpc860sar/>).
- DataSensor S.p.A. **PXA-255 video frame grabber** driver.
- **Eurotech CTR-1470** MPEG Encoder driver (<http://www.enneenne.com/projects/ctr1470>).
- **Eurotech COM-1270** multiserail board driver (<http://www.enneenne.com/projects/com1270>).
- SHDSL modem support based on **GlobespanVirata Chip Set**.
- Synchronous/asynchronous HDLC and Frame Relay communication support for PowerPC MPC8xx CPUs (<http://www.ascensit.comwww.ascensit.com/developers/ehdlc/main.php3>).
- Developing of a Linux **CAN** driver implementation named **ocan** (<http://arcana.linux.it/software/#ocan>).
- **Eurotech INT-1440** video encoder driver.
- Eurotech **Watchdog** driver (added to official Linux's tree since version 2.4.14) (<http://www.enneenne.com/projects/eurotechwdt>).
- MIPS au1x00 CPU family **Power Management** support (<http://ftp.enneenne.com/pub/misc/au1100-patches/linux/>).
- Porting for Linux 2.4 of the shaper **rshaper** (<http://arcana.linux.it/software/#rshaper>).
- Development of the **IPoCAN** project to send/receive IP packets over CAN bus for Linux 2.2/2.4 (<http://www.enneenne.com/projects/ipocan>).

Linux supports

- **Eurotech/Arcom Quantum** boards support (http://wiki.enneenne.com/index.php/Arcom_Quantum).

Projects carried out	
	<ul style="list-style-type: none"> • Eurotech Zypad WL1100 (ex. WWPC1100) support (http://www.eurotech.com/EN/products.aspx?pg=Zypad%20WL1100&pp=Wearable%20Computers&pc=156&pid=10036). • Eurotech Zypad WL1000 (ex. WWPC1000) support (http://www.eurotech.it/main/product.asp?4M=Zypad%20WL%201000).
GNU/Linux distributions	<ul style="list-style-type: none"> • SERP ARM/PXA255 developing board support (http://www.enneenne.com/projects/serp). • <i>Development of the mini GNU-Linux distribution _geek</i> (http://www.enneenne.com/projects/_geek) for Exadron ARM/PXA255-TETRA boards and for Cirrus Logic ARM/EP9312-EDB9312 board (http://ftp.enneenne.com/pub/projects/_geek/packages/). • Development of the mini GNU-Linux distribution Pc104Et for Eurotech S.p.A. (http://www.enneenne.com/projects/pc104et/). • Development and management of GNU-Linux embedded distribution etlinux.
UNIX/Linux programs	<ul style="list-style-type: none"> • Client side LLRP protocol implementation in python (http://wiki.enneenne.com/index.php/LLRPyC). • Control software for the ROBOLAM used for automatic stacking of <i>steel sheets processed by punching machines</i> (http://www.autind.com). • Development of the ettcl project (http://arcana.linux.it/software/#ettcl).
U-Boot drivers and applications	<ul style="list-style-type: none"> • Eurotech/Arcom Quantum based boards support (http://wiki.enneenne.com/index.php/Arcom_Quantum). • ARM PXA27x LCD family support (http://ftp.enneenne.com/pub/misc/pxa270-patches/u-boot/). • Zypad WL1100 (ex. WWPC1100) support (http://www.eurotech.com/EN/products.aspx?pg=Zypad%20WL1100&pp=Wearable%20Computers&pc=156&pid=10036). • Boot logo support (http://ftp.enneenne.com/pub/misc/pxa270-patches/u-boot/). • Philips ISP1161A USB Host controller driver added into u-boot's source tree on 2007.06.06. • Eurotech Zypad WL1000 (ex. WWPC1000) support (http://www.eurotech.it/main/product.asp?4M=Zypad%20WL%201000). • MIPS AMD au1x00 processor family USB OHCI and LCDs controllers drivers (http://ftp.enneenne.com/pub/misc/au1100-patches/u-boot/).

Lectures/Seminars	
Linux Device Driver Programming courses	<ul style="list-style-type: none"> • Datamat in Roma. • ICET in Ariccia. • Italtel in Milano. • Marconi Communications in Genova. • SOGEA S.C.p.A. in Genova. • Saraslab in Cagliari.
Linux Device Driver Programming and RTAI programming courses	<ul style="list-style-type: none"> • CTS in Ivrea. • DIST (Dipartimento Informatica Sistemistica Telematica) University of Genova for the «EQUAL ITACA» project at SOGEA S.C.p.A. • Elettra-Sincrotrone in Trieste. • Intecs in Pisa, Roma and Napoli. • QEM in Vicenza. • Selta Telematica in Piacenza. • Selta Telematica in Tortoreto Lido (TE). • SPES in Fabriano (AN).
U-boot developing courses	<ul style="list-style-type: none"> • SPES in Fabriano (AN).
Technical and «philosophical» seminars	<ul style="list-style-type: none"> • «Demolinux: l'automazione industriale (a scuola) con Linux» at LinuxDay 2010 in Lucca (http://ftp.enneenne.com/pub/docs/talks/demolinux/). • «Linux nei sistemi embedded: perché usarlo e quali tecniche di sviluppo» at BetterSoftware2010 in Firenze (http://ftp.enneenne.com/pub/docs/talks/bettersoftware/). • «Linux intorno a noi» at <i>LinuxDay 2008</i> in Viareggio (LU) and at <i>LinuxDay 2009</i> in Genova (http://ftp.enneenne.com/pub/docs/talks/linux_intorno_a_noi/). • «L'automazione industriale e GNU/Linux: acquisire knowhow, non licenze» at <i>M2M Forum 2008</i> in Milano (http://ftp.enneenne.com/pub/docs/talks/acquisire_knowhow/). • «OpenMoko: il GSM libero!» at <i>LinuxDay 2007</i> in Genova (http://ftp.enneenne.com/pub/docs/talks/openmoko/). • «Linux Low Level» at University of Pisa (faculty of Matematics/Computer Science) organized by the «associazione culturale studentesca @System» on December 2006. (http://ftp.enneenne.com/pub/docs/talks/linux_low_level/) • «Embedded Tutorial» at <i>LinuxDay 2006</i> in Genova (http://ftp.enneenne.com/pub/docs/talks/embedded_tutorial_2/). • «Sviluppo in ambiente embedded – Tra driver e Applicazioni – Tecniche di Sviluppo» at <i>Linux Embedded workshop</i> at University of Pisa (faculty of Matematics/Computer Science) organized by the «associazione culturale studentesca @System» on November 2005. (http://ftp.enneenne.com/pub/docs/talks/embedded_tutorial/) • «Software e Libertà» and «Wrist Wearable PC» at <i>LinuxDay 2005</i> in Genova. (http://ftp.enneenne.com/pub/docs/talks/software_liberta/ http://ftp.enneenne.com/pub/docs/talks/wwpc/). • «Quali libertà per il futuro informatico?» (meeting with children) at Istituto

Lectures/Seminars

Tecnico Industriale E. *Fermi* in Lucca.

- «I sistemi embedded e il Software Libero» at *LinuxDay 2004* in Pordenone (<http://ftp.enneenne.com/pub/docs/talks/embedded/>).
- «Il progetto LCT» at *Webb.it 2004* in Padova (<http://ftp.enneenne.com/pub/docs/talks/lct/>).
- «Libertà d'uso e Possesso reale dei dati» at *LinuxDay 2003* and at *SummerLinux 2004* in Viareggio (http://ftp.enneenne.com/pub/docs/talks/liberta_possesso/).
- «IPoCAN» at *Webb.it 2003* in Padova (<http://ftp.enneenne.com/pub/docs/talks/ipocan/>).
- «Linux & il Software Libero» at *Scuola aperta 2003* at University of Modena and Reggio Emilia (course of *Informatica del lavoro I*) and «Gli strumenti di sviluppo liberi» at several public schools of Lucca (<http://ftp.enneenne.com/pub/docs/talks/softwarelibero/>
<http://ftp.enneenne.com/pub/docs/talks/strumenti/>).
- «Riflessioni sul sistema GNU/Linux» at *LinuxDay 2002* in Viareggio. (http://ftp.enneenne.com/pub/docs/talks/gnu_linux/)
- «Real time con Linux» at *Real-time and embedded show 2002* in Milano. (http://ftp.enneenne.com/pub/docs/talks/rt_con_linux/)

Published articles

Portal consulenti-ict.it

(non-exhaustive list)

- [I Socket Filter di Linux](#)
- [Parlare con il kernel: i Linux Netlink](#)
- [I Linux kernel notifier](#)
- [Android: se non hai il telefono usa l'emulatore!](#)
- [Compilare un programma C per Android](#)
- [Installare strace su Android](#)
- [busybox & Android: la command line facile](#)
- [ettercap: il man-in-the-middle facile](#)
- [Astensione e ricusazione del CTU](#)
- [A3I: cosa è e cosa si prefigge](#)
- [Ingegneria dell'Informazione: la proposta di Legge dell'A3I](#)
- [GNU readline: un tool indispensabile per la linea di comando](#)
- [Anche la Regione Abruzzo comincia a pensare al software libero](#)
- [Lo Studio di Fattibilità](#)
- [Diventare CTU del Tribunale](#)
- [Demolinux: l'automazione industriale con Linux](#)
- [L'ambiente di sviluppo GNU/Linux](#)
- [Caro consulente ma quanto mi costi?](#)
- [La regola di Giometti](#)
- [I caos delle tariffe](#)
- [Il preavviso di notula](#)

Published articles	
	<ul style="list-style-type: none"> • La lettera d'incarico • L'ingegnere Libero Professionista
Linux&C. magazine	<p>(http://ftp.enneenne.com/pub/docs/articles/)</p> <ul style="list-style-type: none"> • «QNAP TS-209 Pro II: un NAS professionale basato su Linux» published on issue 69. • «Videosorveglianza: dalle telecamere IP ai software più potenti» published on issue 68. • «Un NAS da 2000Gb con Linux... il MyBook II di WD si personalizza così!» published on issue 67. • «Neuros OSD: videoregistratore, ma non solo!» published on issue 64. • «GIT, il controllo di versione secondo gli sviluppatori del kernel» published on issue 63. • «OpenMoko, Qtopia e Neo1973: finalmente un cellulare libero!» published on issue 62. • «Nokia Tablet 770: piccolo come un cellulare, grande come Linux» published on issue 51. • «CVS: l'unione fa la forza. Senza pestarsi i piedi» published on issue 49. • «Software "real-time" del pinguino» published on issue 40. • «Make: semplificare la gestione dei progetti» published on issues 34 and 35. • «vi l'editor di riferimento del mondo Unix!» published on issue 24, 25 and 26. • «rshaper, limitare la banda facilmente» published on issue 21. • «I moduli del kernel» published on issue 10, 11 and 12.

Foreign languages	
Italian	<i>Mother tongue</i>
English	Good

According to the Italian Law 675/96 on "tutela dei dati personali" I authorize the holder of these data to use them to treat store, exchange, and other forms in relation to the employment of the subject.

Rodolfo Giometti