

PERSONAL INFORMATION

Federico Fuga



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Sex | Date of birth 08 March 1974 | Nationality Italian

PREFERRED JOB

IT R&D consultant

WORK EXPERIENCE

Jun 04

Freelance R&D Consultant and developer

- Software development for embedded systems, in particular, but not exclusively, development of drivers for Linux and Android and kernel porting to new or custom hardware
- Electronic design of embedded systems, using Microprocessors, Microcontrollers and DSPs.
- Application development for Embedded Systems (GUI, backends, client-server), Desktop and mobile, under Linux, Linux Embedded, Android and Windows.

May 00 – Jun 04

R&D Manager (Hardware and Software)

Development of new products and prototypes; relations with suppliers, customers and other developers; directing, supervising and coordinating the development of new software and hardware modules/parts.

EDUCATION AND TRAINING

Jun 04

Engineering license

Ordine degli Ingegneri della provincia di Verona

93 – 17 Apr 00

Degree in Electronic Engineering

ISCED 5A

- Università degli studi di Padova,
- Electronic and Power Electronic design
 - Control systems
 - Informatics and software

93

Second level College of Science

ISCED 3

Liceo Scientifico Statale G.Bruno,

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	B2	B2
French	B2	B2	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
[Common European Framework of Reference for Languages](http://www.cedefop.europa.eu)

- Communication skills** - Team spirit, gained through my professional experience as a freelance consultant in different companies
- Organisational / managerial skills** - Good sense of organization, both of small teams and in my own work
- Job-related skills** - Excellent experience in hardware and software design
- More than 20 years experience in computer programming through different languages and technologies, ranging from assembly and VHDL to highly structured OOP languages (C++ and Java)
- Confortable with Maths and Algorithms, in the Computational Geometry and DSP fields.
- Computer skills** - Excellent experience with Linux and specifically with Linux on Embedded Systems and Android, ranging from low-level bootloaders and kernel programming to high level desktop and Android applications
- Excellent knowledge of many different programming languages: Assembly, C, C++, Java and others
- Good experience with different Embedded platforms: ARM (various flavour, including OMAP), Renesas SuperH, Intel and Motorola, and microcontrollers and DSP (Microchip, Analog Devices, Cypress, ...)
- Good experience with many different development technologies, especially with the cross-platform QT libraries (since version 2.x)
- Good experience developing GUI and non-GUI applications, both in mobile (Android, Linux on Embedded) and desktop/server systems (on Linux and Windows)
- Good experience implementing Computational Geometry Algorithms
- Experience with DSP and CUDA algorithms
- Good knowledge of electronics design processes, good experience with Eagle (Cad design)
- Driving licence** B

ADDITIONAL INFORMATION*** Recent projects**

- For an important UK company in the marine industry, I upgraded the linux kernel they was using for his embedded systems (based on Omap4) to the latest available version, rewriting some custom driver that was incompatible with the new kernel architecture (camera interface, graphics system, etc).
- For an important italian company in the Gas & Oil industry, I rewrote the control system of an underwater ROV, using the 2.6.20 kernel with realtime patches on a custom Intel based Single Board Computer
- For a small italian company, I debugged and updated the linux kernel for a custom Renesas SH2 based board, to be used in the medical environment. Problems to be solved involved also a bug in the cpu cache management that prevented the graphics image to be correctly displayed on the LCD panel.
- For an israeli startup, I designed and developed a Multimedia distribution system based on a central, QT based Control Panel and an android Application installed on many (150+) devices
- For an american Startup, I developed the support for the Pantech UML290VW for an Android tablet used as a panel for an industrial machine.
- As a personal project, I designed, developed and managed a civil engineering computer tool for acoustics impact simulation, named Prelude (see: <http://www.preluderay.it>), based on ray-tracing techniques and Computational Geometry algorithms, and developed using Qt4 and OpenGL 2.x. The 2.0 version of this software is currently distributed by the italian branch of a multinational company specialized in acoustic tools and software.

*** Publications**

Thesis: "Realizzazione di un controllo digitale per UPS trifase utilizzando l'ADMC401" ("Realization of a digital control for a 3-phase UPS using the ADMC401")

My work at the Electronic Laboratory of the Department of Electronic Engineering was cited in the article "Implementation of synchronous frame harmonic control for high-performance AC power supplies" by dr. S.Fasolo and prof. P.Mattavelli, published in "IEEE Transactions on Industry Applications", Vol. 37 Issue 3, pagg. 864-872.

