

Mario Signorino

vitae::curriculum

Personal informations:

Mario Andrea Antonio Signorino. Born in Milan on Jan 31, 1978 .

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Residence: Milan, Lombardy, Italy. Citizenship: Italian.

IT overview:

Software engineer. Long experience in developing multi-platform, distributed applications.

Relevant skills: c++ network low level programming; Linux embedded; multi-thread, event-driven. Gnu environment. XP programming. In-depth knowledge and experience in TCP/UDP Nat traversal.

Successful in both technical and customer-facing roles, developing both front-end and back-end software, able to transform complex specifications or business requirements into functional applications or prototypes. Motivated in designing and implementation, and in turning research into programs. Experience in using design Patterns. Wide experience in building web applications. Web2.0. Social networks. Google Mashup.

Experience:

Jul 2010 – Software Engineer – Freelancer – Zurich-Horgen – SSM:

Design, development and testing of an embedded application to control textile machinery and yarn processing. Platform: WindowsCE/Linux embedded. A QT Gui connected through network (RPC custom) to a demon handling hardware (via Canbus). Development of many remote clients: Win32/MacOsX/Linux/IphoneOS/Android plus an ERP integration.

Feb 2010 – Software Engineer – Freelancer :

Symbian client for Buxfer.com using “QT for Symbian”.

Sept 2009 / Dec 2009– Software Engineer – Calzoni s.r.l. :

Implementation of a simulator for a “Stabilized Glide Slope Indicator”. A QT interface running on Ubuntu live system. Connected through CanBus e Udp to the real device. Main libraries used: QT, BciCan lib.

Jun 2008 / Feb 2009 – Software Engineer – Freelancer:

Design, development and testing of a complete cell phone software written from scratch. Written mainly using QT and extensible with “applications” made in form of dynamic loadable plugins. Features: calendar, contacts, gps and gsm calls. The software is currently in production. Platform: Linux on ARM9. Main libraries and tools used: QT embedded, eldk, oprofile, gdbserver.

Nov 2007 / Today – Software Engineer – Label s.r.l. – Bergamo – Italy:

Design, development and testing of an embedded application for the industrial weighing in the animal husbandry field. Developed in C++ with Qtopia to run on a ARM9 board (Atmel AT91SAM9263). The Gui is driven through Touchscreen (and/or JogDial) and is connected to daemon for hardware I/O and data storage. Multiplatform (ARM, unix/win 32/64 bit). Main libraries and tools used: Qtopia, eldk, oprofile, gdbserver, Efl (Enlightenment).

2007 Jun / Oct 2007 – Freelance Web Developer – DesignWeb – Montreal – Canada:

Web site engine for hotels. Booking-online, rating from customer, calendar and reception backend.

Dec 2006 / Jan 2007 – Software Engineer with Elever – Milan:

Design and development of several web application. Deep and strong use of Web 2.0 technologies. Coordinator of other PHP programmers. Significant projects: web Photo Community, flickr.com inspired, integrated with Google Maps and with advanced research features. Web calendar, inspired by Google Calendar. Small web and c++ applications for minor software house in Milan. C++ development on MacOSX.

Jan 2006 / Dec 2006 – Software Engineer with BabelNetworks.com – Milan:

Babelgum project: design and development of a distributed network architecture for media exchange among clients in p2p mode and their centralized services integration. DHT. Design of the flows and of the band consumption in videos exchanging. Clients' geo-localizing. Design and development of the network protocol (among heterogeneous services). Design of an algorithm to minimize connection latencies between hardly reachable clients (Nat, proxy, firewalled). Design, development and testing of an application server with high reliability and high performances to manage clients' reachability and availability. Application's main aspects: non-blocking architecture able to manage many thousands of simultaneous connections using the least amount of threads and system resources possible; internal queue message system to avoid deadlock and delays on messages handling; design of automatisms and auto-discovery system among same type servers to distribute working load and to manage potentials malfunctioning; safe server SSL.

Design, development and testing of the clients' exchanging data system core. Main aspects: fruition's QOS on



video downloading; minimum load on centralized server and clients' auto-adjustment to determine latencies, bandwidth, network environment, reliability of connected clients.

Design and development of a thread-safe and virtualized library to access to a local HD storage.

Platforms: unix/win 32/64 bit. Main libraries and tools used: cvs, VisualStudio2005+VisualAssist, Kdevelop, Eclipse, g++, gdb, valgrind, doxygen, QT4 (qmake, pri, pro), OpenSSL, Curl, PHP, CPPUNIT, AquaDataStudio. Bugzilla. All the software has been made in C++ with low level use of BSD socket.

Feb 2003 / Nov 2005 – Software Developer with TvBlob – Milan:

Design and implementation of a streaming system's server side (video communication p2p, RTP on UDP) and its communication protocol (XML, SOAP like). Development of an high performance XML parser (network oriented). Design, implementation and testing of centralized services and of their frontends. Main aspects: the system was conceived to keep persistent connection to clients through light and scalable processes; these processes had only to relay XML messages to classic services (or to their wrappers). In this way it was possible to standardize a lot of classic systems like LDAP, Directory, IM with other developed from scratch.

System administration of company's server. Platforms: unix/win 32/64 bit. Main libraries and tools used: vim, doxygen, cvs/subversion, gcc, gdb, memprof, valgrind, autotools, glib, upnplib, libxml2, OpenSSL, ffmpeg, apt packaging. Linguaggi: C, C+, C++, PHP, lua, python (use and development of wrapping to tests purpose).

Jun 2001 / Jan 2003 – Software Developer with IN3 – Milan:

Design e development of websites in PHP, CGI, Postgresql; Supervisor PHP programmers; Developing of advanced web interfaces. Research of some DHTML techniques to simulate what it will be integrated in all web browser and called XMLHttpRequest. Integration of different Web Framework like Enhydra, Zope, PhpNuke.

Administration of the devs e testing servers. PHP programmer of recruiting website www.jobadvisor.com.

Holidays 2001/2005 – Set designer and Ligth technician | System Administrator with Volume Allestitenti:

Actor, set designer and maintenance staff with Service Exhibition Volume s.r.l.

Personal projects:

Closed projects:

- Alternative multi-platform Upnp C library. Written keeping in mind performances and intended to run on embedded devices (with wrapping in python)
- GUI C++ to use like car-system (GPS, MP3-DVD player) (realized both developing and car installation)
- Home Jukebox with infrared remote controller and LCD display
- Task manager (Tutos / Gtimer style) to manage office human resources
- Clone of the famous animated Dockbar (Mac Os X) for Linux
- System monitor “general-purpose” made with plugins like gdesklets/gkrellm; remotely controllable

Projects actually in progress:

- Domotic. I have built a interfaced PC machine able to manage remotely an entire house.
- Small-scale caterpillar radio-controlled model (bluetooth or WI-FI from pc) using FOX Board ACME and a micro video-camera wireless. Drivable via web and via a GTK2/QT application
- C / GTK application to steer toy trains on a plastic model
- An SDL clone of Bomberman game
- On study: framework WEB for high load website; my system capitalises an high contemporaneous number of clients to reduce load on the central HTTP server, redistributing contents and exploiting the bandwidth of the own clients

Free software contributions:

Solved bugs and sent patches to Dia, Anjuta, Evolution, libgtkhtml, libXML2.

Other:

I have a wide ability on generic developing: starting from assembling a PC up till wood carving. My past experiences, jobs and hobbies (from brick layer to set designer), gave me the opportunity to study and analyze a several materials processing method.

Interpersonal communication: working in theater field and attending his environment, I could develop an higher than usual attitude and attention on interpersonal communication. I can manage problems and misunderstanding that often occur in offices and in work teams. Passion for psychology and communication techniques.

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