Gianpaolo Macario

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Via Lagnasco, 7, 10137, Torino, Italy

About me: A software architect with a longstanding experience in the development and integration of embedded software for the industrial and automotive sectors. Achieved successful results covering different roles within the R&D organization, including product conception and prototyping, design for volume production and management of software vendors and suppliers. Enthusiastic about open source and innovative technologies, always ready to take new challenges.

WORK EXPERIENCE

02/2018 – CURRENT
SENIOR SOFTWARE ARCHITECT AND SITE MANAGER – AROL GROUP S.P.A.

Senior software architect within the Automation and Electronics practice of AROL Group Research & Development division.
Technical responsible for the AROL Group R&D site in Torino, reporting to AROL Group R&D director.

Main projects and responsibilities:
- System Architect and integration lead in a development project of a family of IoT devices for monitoring the performances of capping machines. Developed the end-to-end architecture and supervised system integration and validation.
- Introduced advanced software engineering processes and methodologies to enable the development and validation of a new embedded HMI and Control System for the AROL Group product line
- Managed the initial roll-out within AROL R&D of a collaborative software development environment based on Atlassian tools, then facilitated its deployment to all R&D projects acting as first level of support to the users, escalating issues and prioritizing change requests to the hosting provider
- As technical responsible for the AROL R&D site in Torino, I have been managing the work of a few AROL employees, consultants and staff from local universities involved in the projects (about 10 people).
- Coaching fellow engineers on software integration and debugging techniques of embedded software projects through a training-on-the-job approach.

Technologies: Jenkins, Yocto, Node.JS, Qt, Kubernetes, Jira Software, Confluence, Bitbucket

www.arol.com | Canelli, Italy

03/2012 – CURRENT
COFOUNDER AND CTO – SOLARMA SNC

Founder and CTO of a SME specialized in the design and operation of Photovoltaic Systems. Introduced ad applied innovative IoT technologies to minimize technicians on-site visits and improve margins.
Also providing training and consultancy services on embedded Linux and IoT technologies to enterprises working in non-competing industries.
Technologies: Arduino, Docker, Jenkins, Yocto

Electricity, gas, steam and air conditioning supply | https://www.solarma.it/ | Cuneo, Italy

09/2012 – 01/2018
SENIOR MEMBER, LINUX SERVICES – MENTOR GRAPHICS - EMBEDDED SOFTWARE DIVISION

I was part of a global team with operations in Europe, U.S.A., India and other geographies delivering Linux and Android professional services to the automotive and other industry sectors. Some activities performed in this role:
- Consultant and technical advisor for leading automotive OEMs and Tier-1s on both platform and product In-Vehicle Infotainment development projects based on Linux. Focusing on the global software architecture, system infrastructure and Continuous Integration/Continuous Delivery
- Lead Engineer of a Dedicated Engineering Team supporting a Tier-1 supplier in the development and maintenance of an optimized embedded Linux distribution (custom target based on Freescale i.MX6 SoC). Main focus on BSP and system startup
- As part of a number of customer services engagements, identified bottlenecks and optimized system builds of commercial Embedded Linux distributions based on Yocto
- During the pre-sales process, architect responsible for gathering customer needs and requirements, then defining the solution and coordinating the technical response up to its delivery

- Acting as technical representative of Mentor Graphics within the GENIVI Alliance, with the goal of ensuring coordination and alignment between the company product roadmap and the planned updates of the GENIVI Platform Compliance specification

Information and communication ┃ www.mentor.com/embedded-software ┃ Torino, Italy

01/2012 – 01/2018
SYSTEM ARCHITECT – GENIVI ALLIANCE

Representing the mother company inside the GENIVI Alliance as Lead Architect of the System Infrastructure Expert Group and Voting Member of the System Architecture Team (SAT) and the Compliance Team
Responsible for performing and coordinating several activities and projects, such as:
- Launched, contributed and acted as maintainer of a few public open source projects with a focus on: Embedded Linux, CI/CD, Android, Arduino and the Internet of Things
- Performed a comparative study of the Security architecture and the Access Control mechanisms available on GENIVI and the Android software platform
- Managed and contributed to a project to assess the performance impact when deploying Embedded Linux and Android distributions through Linux Containers or a Type-1 Hypervisor
- Managed cooperation and contribution with University postgraduates and researchers
- Submitted papers and delivered talks about embedded systems and open source during international conferences, University lectures and other public events

Professional, scientific and technical activities ┃ www.genivi.org

06/2006 – 08/2012
SOFTWARE PLATFORM LEADER – MAGNETI MARELLI ELECTRONIC SYSTEMS

- From Jul 2008: Software Platform Leader responsible of the development and productization of a new Linux-based platform for MM infotainment systems
- From Oct 2007: System Architect and Project Lead of the team tasked of the development and integration of an A-Sample unit for the next generation of infotainment systems for a top German car maker. The product was developed on a reference hardware design provided by a lead US Silicon Vendor, with a commercial Embedded Linux distribution and third-party middleware. MM was responsible of the application development, system integration and validation, plus the overall project management. The outstanding result of this project convinced the customer to move on to the productization phase together with MM and its project partners.
- From Jan 2007: Responsible of a joint team at Politecnico di Torino with the mission of developing innovative proof-of-concepts and prototypes of IVI systems based on Open Source Software
- From Oct 2006: Technical Leader in a joint project together with Telecom Italia to develop and deploy telematics services in the automotive space

Manufacturing ┃ www.magnetimarelli.com ┃ Venaria Reale, TO, Italy

07/2005 – 05/2006
ICT MANAGER – COMAU S.P.A.

Due to company reorganization I was reassigned to Comau, where I became responsible of the operations and the evolutive maintenance of an enterprise application for Product Lifecycle Management within the Robotics Business Unit.
Related products and technologies: MatrixOne eMatrix, BEA WebLogic, Oracle, J2EE, XML

Manufacturing ┃ https://www.comau.com/ ┃ Grugliasco, TO, Italy

04/2002 – 06/2005
SENIOR CONSULTANT, WIRELESS SOLUTIONS – GLOBALVALUE (AN IBM AND FIAT COMPANY)

Responsible for several activities and projects including:
- Provided training and consulting to an European automotive Tier-1 Supplier on embedded software development, Linux and Java for an innovative telematics project developed within the EU 6th Framework Programme. Specific tasks: porting and optimization of an Embedded Linux distribution to a custom target (ARM architecture), debug and adaptation of the Linux Bluetooth stack for a custom Bluetooth adapter, porting of the IBM J9 Embedded Java Virtual Machine
- Worked jointly with an international IBM team (US, Korea, France) on a global telematics project for a leading Korean car manufacturer. Developed API, reference implementation software (J2ME, SWT) and Eclipse plugins; organized the technology transfer workshop to the customer
- Prepared training material and performed a few workshops about RFID in US and Germany, assisting and mentoring on the J2ME/J2EE middleware solution developed by IBM

- Worked as technical support of GlobalValue and IBM on several opportunities involving wireless and telematics technologies. Organized technical meeting and workshops with customers, identified solution and worked on the architecture and the project sizing
- Developed a feasibility study and a pre-production pilot of a service of Mobile Office Synchronization between heterogeneous mobile devices and corporate servers via wireless networking and an infrastructure based on IBM middleware

Information and communication ｜ Torino, Italy

02/1998 – 03/2002
SYSTEM ENGINEER – MAGNETI MARELLI SISTEMI ELETTRONICI

- Ported Embedded Linux on custom target hardware (x86 and SH architectures)
- Designed the software architecture and led a team of developers to prototype a Java+OSGi-based in-vehicle telematics system running on production-grade hardware
- Transferred technology and knowledge to company on: Open Standards, Internet Protocols, Web, WAP, Java, and Real-Time Operating Systems

Venaria Reale, TO, Italy

11/1992 – 01/1998
DESIGN ENGINEER – SOCIETÀ DI ELETTRONICA PER L'AUTOMAZIONE (SEPA)

- Responsible for RTOS porting and firmware design to custom hardware

Torino, Italy

● EDUCATION AND TRAINING

10/1990 – 10/1992 – Torino, Italy
DOTTORATO DI RICERCA IN INGEGNERIA INFORMATICA E DEI SISTEMI – Politecnico di Torino

Admitted to third year (Italian Ph.D.)

10/1985 – 12/1989 – Torino, Italy
LAUREA IN INGEGNERIA ELETTRONICA – Politecnico di Torino

110/110 Summa Cum Laude

10/1981 – 07/1985 – Cuneo, Italy
DIPLOMA DI MATURITA' SCIENTIFICA – Liceo Scientifico Statale "Giuseppe Peano"

60/60

● LANGUAGE SKILLS

Mother tongue(s): ITALIAN

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C1	C2	C2
FRENCH	B1	B2	A2	B1	B1
GERMAN	A2	A2	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Continuous integration platforms setup and maintenance (Jenkins) | Docker | Javascript | Linux | C | Microsoft Office: Word, Excel, Access, Power Point, Outlook. | Management tools (JIRA, Confluence) | Git, Github, Bitbucket | Communication Protocols: UART, I2C, SPI, Bluetooth, BLE, BLE Mesh | Microcontroller Programming: Arduino and ESP32

DRIVING LICENCE

Driving Licence: B