Matteo Iervasi

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matteo-iervasi

Firmware engineer with a strong background in low-level programming and microcontroller development, seeking opportunities to apply my technical expertise in firmware engineering to contribute to innovative and impactful projects. Experienced in creating efficient and reliable firmware solutions for embedded systems. Expert in C, C++ and Python, with a focus on optimizing performance and ensuring hardware compatibility. Skilled in utilizing the Yocto Project to customize embedded Linux distributions.

Education

2018–2020 **Master's degree in Computer Science and Engineering**, *University of Verona*, Verona

Relevant courses:
- Embedded systems design
- Networked embedded systems
- Physics of integrated devices
- System theory

2015–2018 **Bachelor's degree in Computer Science**, *University of Verona*, Verona

Relevant courses:
- Operating systems
- Software engineering
- Signal and image processing
- Language and compilers

2010–2015 **High school diploma**, *Liceo Scientifico Angelo Messedaglia*, Verona

Attended the "*Applied Science*" curriculum, which focuses on Computer Science, Physics, Chemistry and Biology.
- Developed a software for controlling the chemistry lab spectrophotometer

Employment

Sep 2020–Present **Embedded software engineer**, *EDALab S.r.l.*, San Giovanni Lupatoto

General firmware and low-level embedded software development for third-parties.
- Collaborated with clients to design and develop firmware solutions for various embedded systems.
- Implemented low-level software, optimizing performance and ensuring hardware compatibility.
- Contributed to the development of real-time systems for industrial applications.

Aug 2020 **Internship**, *EDALab S.r.l.*, San Giovanni Lupatoto

Integrated reliable update mechanism base on SWUpdate for BoxIO.

Dec 2019 **Internship**, *University of Verona*, Verona

Developed an operating system image for classrooms' displays based on Raspberry Pi.

Gen 2017–Mar 2018 **Internship**, *Sordato S.r.l.*, Monteforte d'Alpone
Developed software for controlling an array of automated wine fermentation machines.

2017–2018 **Teacher assistant**, *University of Verona*, Verona
I worked as a teacher assistant in the following courses:
- Operative systems
- Programming I
- Programming II

Volunteering

2017–Present **Technician**, *AVIS*, Vigasio
I volunteered as a technician and general assistance at the local AVIS association, an Italian organization that promotes blood donation.

Languages

Italian	Native language
English	Professional level

Skills

Programming Languages	Excellent knowledge of C, C++ and Python.
Firmware Development	Expertise in low-level programming for various microcontrollers with various environments and compilers, e.g. IAR®, GCC/Clang and Keil®.
MCUs	Expertise in developing for ST® STM32, Renesas® RL78, Renesas® RX130, Renesas® RA, NXP® Kinetis, Cypress® FM4 and other ARM MCUs, Microchip® PIC18, PIC24 and PIC32, Intel® 8051 and Espressif® ESP32/ESP8266.
Embedded Systems	Experienced using the Yocto Project for customizing embedded Linux distributions, Qt/QML for developing complex HMIs.
Operating Systems	Proficient in developing on GNU/Linux and Microsoft® Windows®.
Scripting	Expert in OS automation using Bash and general automation using Python.

Interests

Electronics	I like studying electronics and then putting it into practice, from circuit design to PCB printing.
3D printing	I'm into 3D printing and I enjoy designing things in CAD that then I use in my projects.
DIY	I love to repair home appliances, furnitures and fixing broken computers.