STEFANO NICOLIS

Embedded Systems Engineer focused on embedded software and firmware with much involvement in the electronics and manufacturing aspects too

CONTACTS
stenicolis@gmail.com
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LINKS
LinkedIn Website
Github YouTube

LANGUAGES
Italian: mother tongue
English: professional level

SKILLS

Embedded Software & Firmware
- C, C++, Python, Zephyr RTOS, embedded Linux, user-space applications, system programming, Yocto Linux
- Worked with nRF52, ATMega, USB, BLE, SPI, I2C, UART

Electronics & Hardware Design
- KiCAD 2-4 layers PCB design, manual assembly, high-manual dexterity and lab tools know-how
- 3D modeling and enclosure design using Fusion 360/Blender, both 3D printed and CNC-machined aluminum

WORK EXPERIENCE

Marelli motorsport — Embedded software engineer

Bologna, Italy January 2025 - present

- Developed a memory-efficent, 3-function C/C++ inference API to enable many-processes, many-models seamless and concurrent inference on the iMX8 CPU/GPU/NPU and an external Hailo-8 PCIe accelerator.
- Extended the company Yocto-based custom Linux image to add support for the drivers, libraries and runtime components required by the API.

Iotinga SRL — Embedded systems engineer, part-time during my Msc

San Giovanni Lupatoto, Italy October 2021 - April 2022

- Developed an ESP32-based IoT product prototype to evaluate early product ideas, delivering a functional hardware platform to evaluate the initial product concept
- Designed the hardware with KiCAD, including component selection/sourcing and manual assembly
- Written a bring-up firmware in C using the ESP-IDF framework to evaluate the hardware design

EDUCATION

Msc Computer Engineering

University of Verona October 2021 - July 2024

Thesis: developed an OPC-UA server in C# and a Companion Specification for SPEA PCB testing machines

Bsc Computer Science

University of Verona October 2018 - October 2021

Thesis: analysis and visualization of a production line energy consumption suing Python, Kafka and InfluxDB

PERSONAL PROJECTS

Optical Mouse

- Independently designed desktop mouse: PixArt sensor, nRF52 MCU, USB/BLE connectivity, battery powered
- Full stack project: 4-layer PCB done with KiCad, components selection/sourcing, 3D-printed enclosure designed with Blender and Fusion 360 and firmware in C built with the Zephyr-based nRF Connect SDK

ABOUT ME

I'm actively seeking to move and settle in Denmark. I'm a detail-oriented, deeply curious and self-critical person. I dabble in calisthenics, powerlifting, running and tennis. I rode a bike for six years which I passionately maintained myself. I write poems to convey what I believe to be true. I prefer a conversation over a movie.
I love engineering and I feel honored to be in a position where I get to understand and develop technology.