

# Marta GOTTARDELLO

## Firmware Engineer

19/02/1997

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Turin



## PROFESSIONAL EXPERIENCE

Today  
March 2022

### Firmware Engineer, GRIDSPERTISE, Milan

- > Development on microcontroller (MCU) with ARM Cortex-M architecture
- > Development on microprocessor integrated with a System-on-Chip (SoC) modem
- > Use of the Open Systems Interconnection (OSI) model
- > Programming of embedded Linux and Real-Time systems
- > Management of self-signed certificates using the OpenSSL library
- > Management of input requirements and drafting of functional specifications
- > Creation of unit test tools

Embedded C MCU Microprocessors SoC Linux Telecommunications OSI OpenSSL

September 2021  
April 2021

### Intern and Thesis Student, I-TES, Turin

- > Design of thermal energy storage integrated into a natural gas reduction system
- > Sizing of thermal energy storage while adhering to thermal and physical requirements

Thermal Energy Storage Natural Gas ReMi Station Data Analysis

## EDUCATION

2019-2021 Master's Degree in Energy and Nuclear Engineering-Specialization in 'Renewable Energy Systems' at Politecnico di Torino

2016-2019 Bachelor's Degree in Energy and Nuclear Engineering at politecnico di Torino

## PROJECTS

### MICROCONTROLLER PROGRAMMING

2022-2023

Implementation of diagnostic features for a three-phase device. Programming of an analog-to-digital converter (ADC), management of interrupts and EEPROM memory on an ARM Cortex-M0 MCU in the Keil MDK development environment.

ADC Interrupt ARM Keil Embedded System

### MICROPROCESSOR PROGRAMMING

2023-2024

Programming and debugging of the ARM Cortex-M4F microprocessor for use in a Power-Line Communication (PLC) SoC modem. Use of the PLC G3 and MQTT protocol for network communication and the Device Language Message Specification (DLMS) protocol for communication with other devices for control and data collection. Management of self-signed certificates (rootCA and PKCS12). Development of tests in Radio Frequency.

Microprocessor SoC PLC G3 PLC DLMS Radio Frequency

## SKILLS

Programming	C, Bash, Python, Matlab, LaTeX
Communication Protocols	PLC G3, MQTT, DLMS, M&M
Operating Systems	Bare metal, Real-Time Operating System (RTOS), Embedded Linux systems
Tools	Git, Visual Studio Code, Keil MDK, Vim
Organizational Tools	Jira, Confluence, Bitbucket, SourceTree, Agile
Languages	English (intermediate), French (basic)
Soft Skills	Communication, Project Management, Public Speaking, Creative Thinking, Time Management
Personality	Organized, collaborative, motivated, responsible, curious, reliable