LEONARDO AIROLDI
ELECTRONICS ENGINEER
Milan, Italy

• CONTACTS •

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⌂ GitHub
🌐 Website

• TOOLS •

MATLAB

Simulink

Cadence Suite
- Genus
- Virtuoso
- Xcelium
- Capture

LTspice

Xilinx Vivado

3D CAD

Linux Environment

PowerPoint

Excel

• PROGRAMMING •

C

C++

MATLAB

VHDL

Python

Java / C# / OOP

• SOFT SKILLS •

Teamwork

Engineering Reports

Meeting Presentations

Project Scheduling

Time Management

Team Communication

Continuous Learner

Problem Solving

• LANGUAGES •

English – B2

Italian – C2

• INTERESTS •

• Music • Electric Guitar • Bass Guitar • 3D printing • Self-hosting • IoT • HPC • Smart-Home • Electric Vehicles • AI • Economy • Physics • Tennis • Windsurf • Bikes • Basketball • Snow Skiing • Nature •

PROFILE

Passionate Electronics Engineer, willing to learn and tackle challenges of today's world

EXPERIENCE

▣ ARPLab, Politecnico di Milano: "Time Interleaved ADCs for Wireless Applications"
September 2024 – July 2025

MSc's Thesis at an academic research lab focused on Integrated Circuits, part of the Analog-to-Digital Converter (ADC) design team. Studied effects of non-idealities of Time-Interleaving (TI) converters used in modern wireless digital radio (Wi-Fi, 5G) receivers. Awarded 7/7 points.   Advisor: Prof. Carlo Samori

- Conducted **research** on state-of-the-art converters.
- **Developed a numerical simulator** in MATLAB based on analytical models.
- Drove **performance improvements** studying state-of-the-art randomization techniques and proposing a **novel timing skew calibration** technique**.**
- **Digital design** of random-TI phase generator in **VHDL** using **Cadence Xcelium**, **Genus** and **Virtuoso**, meeting project specifications in the target 28nm technology node.

🚗 Battery Management System Engineer at Dynamis PRC, Formula Student
May 2022 – September 2024

Designed and developed software for monitoring and controlling the battery pack (accumulator), ensuring safety and performance of a Formula Student electric racing car.

- Focused on BMS firmware **architecture**, working with **FreeRTOS** in C.
- Developed a **model-based** Power Limiter algorithm using **Simulink.**
- Working directly with the accumulator as part of the Powertrain department. Collaborated closely with other team areas (e.g. Cooling, Vehicle Dynamics)
- Assisted in project planning, progress tracking, developing engineering reports.

EDUCATION

Electronics Engineering, Politecnico di Milano
September 2022 – July 2025

[Grade: 102/110] Master of Science Degree focused on Integrated Circuit Electronics. Relevant courses:

• Mixed-Signal IC Design • Digital Embedded Systems Design • Analog/Digital IC Design

Engineering of Computing Systems, Politecnico di Milano
September 2019 – September 2022

[Grade: 107/110] Bachelor's degree in Computer Science Engineering. Relevant courses:

• Algorithms and Information Theory • Computer Architecture and Operating Systems

Liceo Scientifico opzione Scienze Applicate, IIS Vittorio Bachelet
September 2014 — July 2019

[Grade: 92/100] High School Diploma focused on Scientific Subjects, including Computer Science

★ ACTIVITIES & CERTIFICATIONS

🚗 PES-PAV Certification
January 2023

Certification issued by *TEXA Automotive*, regarding safety procedures for working with high voltages.

🏁 FS Austria Red Bull Ring – 🏁 FS East Hungaroring
July 2023 / July 2024

Attended Formula Student international competitions, working on the car at race day.

❄ ETH Zurich Quantum Hackathon
May 2023

Participated in the algorithm challenge, solving the Travelling Salesman Problem using qubits.